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HISTORY

OF THE

LUMBER AND FOREST INDUSTRY

OF THE NORTHWEST

BY GEORGE W. HOTCHKISS.

ILLUSTRATED.

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PREFACE.

THAT the time has fully arrived when a history of the most important industry which has ever developed since the settlement of the great Northwest should be put in shape, giving to coming generations a knowledge of the vastness of the primeval forests of the great States which are the principal subjects of this work, and of the progress made in their destruction, will be questioned by no one. It is unfortunately true that during the period of denudation, a great majority of the operators to whom has fallen the lot of converting the great bodies of white pine which were found in Michigan, Wisconsin and Minnesota, into the dwellings of a treeless prairie or the more pretentious mansions of a myriad of cities, should fail to grasp the extent and importance of the work in which they were engaged, and have left but little or no concerted record for the information of those who in future generations will feel interested to know of past conditions. While it is true that the lumber journals of the land have done excellent work in portraying present conditions, for the immediate guidance of the hundreds of thousands whose work has been in the forest, on the drive, in the saw mills, or in the distribution of lumber to the consuming public, it was manifestly impossible even with the most enlightened journalistic effort, to portray in their columns in a succinct manner the growth and progress of the work from the first effort of the earlier pioneer down to the present day. Equally impossible would it be for a historian to more than touch upon the conditions which through more than half a century have demanded the services of hundreds of thousands of men in all branches of the development of the lumber business, from the cutting of logs to the distribution of three hundred and thirty-three billions of feet of timber and lumber to all parts of this nation and to a goodly extent to nearly every other nation on the face of the globe. It has not been the aim of the historian to enter exhaustively into a work which could but demand a library rather than a volume, to fully portray its growth and progress, while yet it has been his aim to give to the world such information as shall do justice to the hardy pioneers of the early century and their successors of the later day in a general description of the inception, growth and progress of an industry which has added greater wealth to the national resources than have its minerals, and it might almost be said, its agricultural products.

So, too, in the vastness of the work which has developed to the historian, it was manifestly impossible to mention more than a small fraction of those enterprising operators who within the past sixty years have added more than four billion dollars to the national wealth, principally in the employ of labor in the forest and mill, in turning the encumbering forest into a means of adding an incalculable source of wealth to the nation in the development of a region which but for the availability of a cheap building material must have lain dormant for centuries to come. The historian has, however, endeavored to portray the original conditions of the forests and the progress of their denudation, through individual localities, and to name the earlier pioneers of each, rather than those who are now profiting by the enterprise and push of their predecessors. In the individual sketches which he has selected, the aim of the historian has been to amplify the general lumber history of the locality rather than to glorify the subject of the sketch, while yet it has been deemed judicious to include mention of such general facts and conditions in the individual as would best portray the general character of the fraternity of lumbermen in their public spirit and very general influence in the community.

For the history of the inception and growth of the lumber business of the northwest, the historian has drawn largely from the "Le Balme" papers on file in the government archives at Ottawa, Canada, and which comprise the original military and colonial records, down to the present century. The proceedings and publications of the Historical and Pioneer societies of Michigan, Wisconsin and Minnesota have also been availed of, while the recollections of pioneers who are still living have been sought and courteously given. To the courtesy of William B. Judson, Esq., editor and proprietor of The Northwestern Lumberman of Chicago, the historian is indebted for free access to the files of that journal from its earlier publications in 1873 down to the present day.

While it would be an unwarranted egotism on the part of the historian to claim either an exhaustive treatment of the vast subject under consideration, or unqualified correctness in all its details, the historian from a half-century connection with the lumber trade, has brought to bear his individual knowledge of the existing conditions, and his intimate connection with the compilation of yearly statistics of the trade since 1870, in an honest endeavor to portray the rise, progress, extent and value of the greatest commercial industry of the nation, with no desire or purpose to exaggerate or to minimize, but to hand down to generations to come a reliable history of an industry which more than any one other prominent industry of our land has developed sources of untold wealth to the nation, not only in its direct, but as well its indirect influence in the peopling of the vast prairies of the west, and the building up of the many thriving cities which are found scattered all over the land, and without which the almost illimitable lines of railway with which the nation is dotted would have been as unnecessary as impossible of construction. The past century has been an era of wood, the coming one is destined to be one of iron, brick and stone, so far as the building arts are concerned, for with a perfect knowledge of the conditions of all parts of the continent, it is indisputable that no great bodies of white pine remain undiscovered in the United States, while the Canadian territory so long believed to be one dense forest of pine timber is to-day but little, if any, better off in this respect than is the territory more immediately treated of in this volume, as will be noted from the Canadian statistics to be found in a later chapter of this work. As to the finishing material of the future, the historian has seen fit to suggest but little; that a substitute for the pine of the past will be found in the forests of the south, those of the Pacific coast, and the hardwoods of an entire continent, not to make more than a suggestion of the resources of Cuba, South America and even of Siberia, it is sufficient to say that so long as oats, rye, wheat and flax can produce straw, so long will a fair substitute be available in the indurated fibre which from these sources are capable of being molded into any requisite form and shape for the use of the builder.

The historian submits his work, the compilation of which has demanded four years of careful research, added to many years of personal experience, in the full belief that whatever its shortcomings in the eyes of the individual reader, it is at least probably as nearly correct a history of the discovery and destruction of the pine forests of the northwest as existing means permits to be written, while its statistical data has been carefully drawn from the only records which are (or ever can be) obtainable. As a plain statement of past conditions, and of the means by which, and largely of men by whom, the forests of the northwest have melted away like the snow before the summer sun, this work is submitted by the

AUTHOR.

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Geo W. Hotchkiss

BIOGRAPHY.

George W. Hotchkiss, author and compiler of this work, was born at New Haven, Conn., October 16th, 1831. He was the son of Elias and Almira (Woodward) Hotchkiss, the families upon both sides being descended from early colonial stock, dating upon the parental side to Guilford, Conn., 1643, succeeding generations being prominent in the development of the colony of Connecticut down to the Revolutionary war, in which the grandfather of George W. took a prominent part, and was killed in the defense of the city of New Haven, when attacked by the Hessian cohorts.

Elias Hotchkiss was a lumber dealer at New Haven, establishing a yard at that city in 1808 and continuing in the business until his retirement in 1847, at which time he was succeeded by his son, Thomas W. Hotchkiss, who after continuing in the lumber business at New Haven, Albany and Elmira, N. Y., was in 1884 appointed U. S. consul at Ottawa, Canada, by President Cleveland, a position which his long experience in the lumber trade enabled him to fill with great advantage to the lumber trade of both countries. The family of Elias Hotchkiss consisted of five sons and four daughters, of whom three sons, Thomas, George W. and James F., adopted the profession of lumbermen. George W. was educated at the Lancasterian school, New Haven, supplemented by a two years' course in the Russell & French Military Academy of that city. In June, 1848, he left the Academy to take a clerkship in the yard and office of his brother Thomas, and in the spring of the following year joined the California argonauts, making the trip to the Golden Gate via Cape Horn. For nearly a year he clerked in the general store of Scranton & Smith at Sacramento, at a salary of $300 per month, his first service being in the purchase of lumber at $500 per thousand, for the completion of the building which his firm had brought from the east. In the early spring of 1850 Mr. Hotchkiss opened the first trading post in Greenwood valley, and in the fall of that year, after investing his little capital in a dam which was being constructed on the north fork of the American river, he returned to his Connecticut home with but twenty-five cents in his pocket, but with high expectations of the enormous dividends which were soon to follow, and with which he expected to return. A couple of months later he was notified that on completion of the dam one day's work in the river had netted $6,000, but on the following morning no trace could be found of the dam or tools of the company, which had been swept away in the night. This put an end to all his plans for returning to the Golden State, and in March, 1851, he journeyed west to join his brother-in-law, Henry Wheeler, at Port Dover, Canada, in the purchase of lumber for the Albany market. For a few months he clerked in the general store and steamboat warehouse of Israel Powell & Son, awaiting the season of lumber purchase, the mills being all located in the interior and the lumber reaching the shipping point by team. Until 1855 he was engaged in lumber purchase, learning Albany inspection under the tutelage of Samuel Ellis, a veteran inspector, and in that year purchased the business from his brother-in-law, who removed to New York city. Continuing in the lumber business, to which in the fall grain purchase was added, he continued until 1862, when the events of the Civil war compelled Americans to quit their Canadian operations, and after a brief sojourn at Buffalo, he accepted the position of Saginaw manager of the first barge line instituted upon the lakes, and removed to Bay City, Mich. During his sojourn in Canada, his yearly purchases reached about 10,000,000 feet, which averaged from 50 to 75 per cent uppers, costing, up to 1857, $14 for the three uppers, $7 for "fourths" and $4 to $5 for select common. Ordinary common was not purchased until about 1856, when the price was $3. The timber of this section was in the main of the finest quality of "cork" pine.

On reaching the Saginaw valley in the early fall of 1862, Mr. Hotchkiss took charge of the barge line established by Noyes & Reed of Buffalo, which included the three dismantled and rebuilt steamboats which had been known as "lake palaces" up to the building of the railroad lines on the south side of Lake Erie and through Canada, which killed the lake traffic. These barges consisted of the Empire, carrying 800,000 feet; Sultana, 600,000 feet, and St. Lawrence, 1,200,000 feet, which were towed by the powerful tug Reindeer, one being loaded at Saginaw, while one unloaded at Buffalo and the third was in transit for exchange.

In the fall of 1863 Mr. Hotchkiss was joined by Andrew H. Hunter, and the firm of Hunter & Hotchkiss opened an office for the purchase, inspection and shipment of lumber, in which with a rapidly growing business, they, in 1865, were joined by William Mercer, forming the firm of Hunter, Hotchkiss & Co., and this firm was among the first to enter into the business of towing logs from Tobico bay and the Rifle river in booms, for sawing at Bay City. In 1866 Hotchkiss & Mercer took the contract for building seventeen miles of plank road connecting Bay City with Midland, erecting a saw mill in the town of Williams, about midway between the two cities. A wet season with a large gang of men, combined with the loss of two rafts of logs on Saginaw bay, swamped their capital and left them bankrupt, with losses of over $50,000. In 1869 Mr. Hotchkiss was induced to accept the business and editorial management of The Saginaw Courier, a daily paper, and for a year and a half spent eighteen hours a day in this occupation. In 1870 he built a saw mill of one circular saw, with

40,000 feet daily capacity, on the advanced line of the Michigan Central railroad north, and naming his settlement Georgetown, soon after took active steps to organize the township of Edwards, of which he was the first supervisor, being also postmaster and justice of the peace, until the separation of Ogemaw from Iosco county. Overwork brought on nervous prostration in 1874, and forest fires destroying the saw mill and village, Mr. Hotchkiss was for four years practically disabled from work.

In 1872, however, while engaged in editorial work and as business manager of The Saginaw Daily Courier, with which paper he first became connected with journalism, he had assisted Henry S. Dow in the inauguration of The Lumberman's Gazette, at Bay City, the first lumber journal of the world, and during the period from 1872 to 1877 was more or less intimately associated with the editorial management of that journal, combining for a year or more the charge of The Bay City Journal, an evening daily paper. In the winter of 1877, Mr. Hotchkiss visiting Chicago, was engaged by Judson & King as an expert editorial writer on the staff of The Northwestern Lumberman, and while thus engaged prepared a Lumberman's Handbook of Inspection and Grading, which found ready approval in the trade, more than 40,000 copies of its several editions finding sale throughout the land. In 1881 Mr. Hotchkiss was elected secretary of the Lumberman's Exchange of Chicago, occupying that position until the spring of 1887, during which period the Exchange obtained a position of prominence second only to that enjoyed by the Board of Trade of Chicago. In 1884 he prepared the first published rules for the inspection of the various kinds of hardwood lumber, which upon submission to the trade, after revision by several prominent dealers, were adopted by the Lumberman's Exchange and became the basis upon which all rules for the inspection of hardwood lumber have since been promulgated. In this position Mr. Hotchkiss' name became as a household word in the lumber affairs of the entire northwest, and his reputation as an expert lumberman was undisputed. His health failing, he, in March, 1887, resigned the secretaryship of the Exchange, and soon after, in company with Walter C. Wright, purchased The Lumber Trade Journal, of which he took editorial charge until 1890, when his health again forbade close application to the duties of the position, while retaining his interest to the present time. With a season on the Pacific coast and to Southeastern Alaska, another in mackerel fishing on the Bay of Fundy, and intervening time as health would permit in the charge of The Evanston Press, a weekly newspaper, together with editorial work on The Lumber Trade Journal, when not in the hospital, Mr. Hotchkiss in 1894 began the compilation of a "History of the Chicago Lumber Trade," a volume of 700 quarto pages, embellished with the portraits in steel of nearly one hundred of the lumbermen of Chicago, which was published in December, 1895, by the Goodspeed Bros. of Chicago, soon after which he began the compilation of the present volume, which has demanded three years of arduous labor and vast research of military, colonial and pioneer records, combined with perplexing difficulties regarding the history of a later and more recent period.

Mr. Hotchkiss was married August 10, 1856, to Miss Elizabeth St. John of Ellsworth, Conn., one son, Everitt S. (lumber dealer at Mayfair, Chicago) and Julia D., wife of W. W. Hogle, being the issue. He resides at Evanston, ten miles from Chicago, where he has taken an active part in religious and social as well as political matters. He has been a member of the Masonic body since 1856, and is now a member of Evans Lodge No. 524, F. & A. M., of which he was secretary for eight years; Evanston Chapter No. 144, R. A. M., and Evanston Commandery No. 58, K. T., of which he is recorder. A Presbyterian in religious connection, he is a Jeffersonian Democrat in politics, yet of liberal view, which compelled him to see the best interests of the nation in the election of McKinley for president in opposition to the silver plank of the Chicago platform of 1896, his consistent and outspoken position being so highly appreciated by the citizens of an overwhelmingly Republican district, that in the spring of 1898 he was elected by a plurality of 512 votes over his Republican and two other independent candidates to the honorable position of justice of the peace of the township.

Few men have enjoyed to an equal extent the confidence and affection of the communities in which his lot has been cast, and none have stood higher in the estimation of the lumber fraternity as an expert on lumber matters. (*Communicated.*)

HISTORY

OF THE

LUMBER AND FOREST INDUSTRY OF THE NORTHWEST.

MILITARY AND COLONIAL DAYS. — MICHIGAN PIONEER MILLS, 1690-1780. — MACKINAW, 1778. — CANADA MILLS. 1780. — STATISTICS, ETC.

CHAPTER I.

THE wonderful development of the United States during the first century of its existence as a Republic, has been due in no small degree to the vast forest resources embraced in that section originally known as "the Northwest Territory," embracing all that region of country west of the State of Pennsylvania, to the Mississippi river, to a southern boundary formed by the Ohio river, and including the present States of Ohio, Indiana, Michigan, Wisconsin and Minnesota, and for the present purposes of a history of the forestry industry of the North West, due regard must also be had to that section of British North America embraced in the term of "Canada West," which, regardless of political boundaries, has to all intents and purposes, been justly regarded as a part and portion of that vast national resource which has so largely contributed to the building of cities both east and west, and to the development and populating of the vast area extending to the Pacific Ocean, which but for the availability of a cheap building material, must have retained for ages to come, as since the discovery of the country, the cognomen of "The Great American Desert."

The States named are properly classed in two divisons, known as the Pine and the Hardwood districts. South of Lake Erie in the States of Ohio and Indiana, and including Illinois on the west, no pine timber of a commercial character is to be found. In these States poplar (both white and yellow), oaks of different varieties, hickory, maple (soft and hard), black and white ash, black walnut, basswood, cherry, chestnut, gum, beech, cottonwood, and sycamore were originally to be found in great abundance, and to a lesser extent may be found to-day.

In some portions of Ohio and Indiana vast forests of valuable black walnut and cherry contributed for many years one of the most valuable factors of commercial industry. In some sections walnut was so plentiful as to constitute the most available timber for the fencing of farms, and in many localities may yet be found rail fences, the material in the construction of which, if it could be utilized in present manufacture, would be found of greater value in dollars and cents, than the land which is enclosed by it.

It was not until about 1840 that the commercial value of this beautiful wood became sufficiently recognized to lead to any systematic attempt to conserve and utilize it. From that date however it rapidly gained in public favor, and for thirty years or more it held a position of prominence in the commercial world as an ornamental wood for furniture manufacture or interior house finish, second to no other material employed where aesthetic taste was sought. From an almost valueless and sadly neglected product of the forest to be ruthlessly destroyed in log heap or utilized as a fence rail, it rapidly grew in public favor, and from an initial value of from ten to fifteen dollars per thousand feet for the manufactured lumber at the mill, it advanced by rapid stages to as high as seventy-five and one hundred dollars, and as early as 1870 even the stumps of the trees cut many years before were eagerly sought by the manufacturers of Veneers. Cherry which with Mahogany of foreign growth had previously held the supremacy, but which was found in far less profusion, was almost wholly supplanted by the more abundant walnut, and with it may now be classed among the almost extinct products of the Ohio and Indiana forests. Oak still abounds in localities and holds the preeminence at the present time among the commercial woods of those States, while the other varieties of timber, long considered of no commercial value, have for some years past, forced their way into the manufacturing and mechanic arts, and are in no small degree contributing to the wealth of the respective localities in which they abound.

The most important among the products of the forests of the northwest, however, was the White Pine, (*pinus strobus*); and the Red or Norway Pine (*pinus resinous*), which may be described in a general way for the purposes of this history, as indigenous to the territory bounded on the South by Lake Erie, and on the East by the eastern boundary of that section familiarly known as "Canada West," extending west through Michigan, and embracing the major portion of Wisconsin and northern and eastern Minnesota, and continuing northwesterly into the British provinces of the northwest, to and including the chain of lakes north and east of Winnipeg in the province of Manitoba. The territory thus roughly outlined, may without exaggeration be set down as having originally been covered with 1,000,000,000,000 of timber of commercial value, of which the white and Norway varieties of pine, constituted the larger half, and as a commercial factor, up to the present time, of the most transcendent importance.

From the earliest history of the nation this pine growth has been considered of the greater value from its more ready adaptability in contributing to the wants of man. To the early settlers its comparative lightness in weight, and ease of working and handling, together with its freedom and straightness of grain, marked it as the most readily adaptable timber for the construction of the walls of the log cabin, (when thus used in the log), the covering for its roof, (in "shakes,") and the puncheons for its floors, the axe and the hand saw being for many years the only available means for reducing the tree to a condition at all suited for man's requirements, and in later days, when, with the erection of saw mills for the reduction of logs to a more portable condition, the log cabin gave place to the more aesthetic if not more comfortable frame building, no product of the forest was found so available, so easily worked, or so easily adaptable to the finish of all portions of the dwelling.

The pine of the northern forests from its eastern boundary in Maine and New Brunswick to the extreme western limit of its growth, has been the reliance of the settler, whether in the building of a cabin in the woods or the erection of a mansion in the city. No other product of the forest has been so available for frame, roof and interior finish, no other was so plentiful, so easily worked, so readily adaptable to all the various requirements of plain and ornamental finish, or so cheap in its first cost; what wonder then that within the limits, practically of a half century, the demands of a rapidly growing nation, combined with a destructiveness which to the thinking mind is simply appalling, the vast forests of pine have been swept away as by a cyclone, until a well grounded certainty may be expressed that one, or at the most two decades will accomplish its complete denudation.

It may truthfully be said that up to the year 1850 little or no value was placed upon this most invaluable factor of a nation's wealth, so far as the supply from the forests of the northwest are concerned. The tide of emigration which sought the fertile lands of Michigan, was at first confined to the more southerly portions of the State, extending by but slow degrees, into the more northerly sections. The southern counties were densely wooded by forests of oak, cottonwood, poplar, black walnut, cherry, basswood, maple, beech, sycamore and elm, and the soil presented greater attractions to the pioneer, who was invariably a farmer, than did the lighter and more sandy soil on which the pine was usually found, and in addition in the absence of roads, was more readily accessible. Having only the creation of a farm in view, the early settler placed no value upon the timber growth, his only effort being centered on the rapidity with which encumbering timber could be cut down and disposed of in the log heap. It is a safe assertion that of the original forest growth of Ohio, Indiana, Michigan and Wisconsin as much if not more has been destroyed by the axe and log heap of the pioneer and by forest fires, largely originating through the carelessness of the farmer and the logger, than has been utilized in commerce.

The first saw mill of which we have record in the nation, was erected in 1634 on the falls of the Piscataqua near the line dividing Maine from New Hampshire. This was of primitive construction as were all the mills of the subsequent two centuries, and embraced a saw stretched upon a huge gate or frame running in wooden slides on ponderous side posts, the pitman being connected direct to the over shot wheel. These slides were in the earlier days, of maple or tough oak, the boxing of the frame being usually of the same material, held in place by iron straps or stirrups where they were not trenailed or spiked to the frame. The mill was located upon the banks of a small stream, where the labor of building a dam was reduced to the minimum, and was the precursor of the vast number of mills which have since that time been at work in the labor of destroying our forests, to the end of building up a nation.

The settlement of the country in its extension west, soon gave rise to a necessity for mills at various points on the Atlantic coast, and in the interior along the tributaries of the Connecticut and Hudson rivers, and with the still further westward march of settlement, to the streams of central New York and Pennsylvania, while with the still earlier settlement of Canada, mills also became a requisite, and indispensable necessity. These mills, necessarily of a primitive character, and with capacity suited to the meagre wants of a sparse population, were capable of cutting only from five hundred to one thousand feet per day.

While the wilds of the western portion of Canada did not present any very inviting prospect to the hardy pioneer, who even in the eastern settlements was not overburdened with neighbors, we yet find record of a saw mill erected at the mouth of Bunce Creek in the then western Province of Canada (now near Port Huron) in 1690, by a Frenchman who had strayed west from Montreal and chosen a location in the forest far remote from any civilized contact; in the utter absence of neighbors or possible users of lumber, in a country still in undisputed possession of the Indians, it is a question of interest as to the object he could have had in view, in the manufacture of lumber, even for his own use, his wants being of the most meagre character, his occupation being no doubt confined to hunting and trapping. Ninety years later, 1780, a man named Ignace Morass built a mill at the mouth of a creek near Marysville on the St. Clair river, and at some short period previous to the revolution a mill was built on Pine river.

During the period between 1700 and 1800 the region known as Eastern Canada, extending west to Lake

A. A. Dwight

Ontario, received quite an accession to its population, and with it a growing demand for lumber, necessitating the erection of saw mills, which after the revolutionary war increased in number with great rapidity, and during the period from 1820 to 1860 the country was dotted with mills of capacity of from one thousand to five thousand feet per day, until by 1870 to 1875 a vast proportion of the country from Kingston west, and south of the Georgian Bay district, had been so completely denuded of its pine timber, as to require imports of building material from more northerly and distant sections, for the local uses of the people of nearly the entire southerly portions of the province.

The Ottawa river running north and west from its confluence with the St. Lawrence, and extending into the region north of Lake Nipissing, has for many years been denuded of the pine which lay nearest its mouth, and while Ottawa still retains its prominence as the greatest lumber producing section of Ontario, its supply of logs is, and has for several years been sought at the head waters of the stream, hundreds of miles from the point of manufacture, while the extensive forests which at one time gave employ to hundreds of mills and thousands of laborers in the territory adjacent to Lakes Erie and Ontario, have been wholly denuded, and the larger portion of the mills which are yet in commission in that vast territory, are now confined in their operations to the manufacture of oak, ash, birch and hemlock, with such scattering pine as still remains, of that, which in earlier days was not esteemed worth the cutting by reason of defects which unfitted it for a marketable product, while perchance yet available for the coarser uses of a home market. Interspersed, however, throughout the country were vast bodies of the finest quality of white oak, and in the western and southern portions of the province, large tracts of valuable black walnut were originally to be found.

During the decade and a half from 1840 to 1855 an immense business was done, principally in the country tributary to Lake Erie, in the manufacture of square oak timber and staves, the oak of that section being a prime favorite with the ship builders of England and France, and many vessels were employed in its transportation to Kingston, where it was placed in large rafts and floated to Quebec, whence it was loaded on sea going vessels for the ocean voyage. Similarly, for many years a large export trade was carried on in partially squared (known as "Board") pine, large quantities of which were in request by the saw mills of Liverpool and London. Similarly also from nearly the beginning of the lumber manufacture of the province, the mills have been called to respond to a large demand for "Deals," a designation applied to plank of two and a half to three inches thick, for use in re-saw mills in transatlantic cities. These distinctive branches have been practically at an end (especially in better grades) for the past decade or more, a scarcity of oak timber, no less than the introduction of Iron and Steel in the construction of modern ships, having operated to the discontinuance of the former business of constructing the "wooden walls," which until a comparatively recent date constituted the commerce of the world. The main timber resource of the province of Ontario is now confined to the forests tributary to the Georgian Bay, embracing the Spanish, Serpent, and French rivers of the Georgian Bay region, the head waters of which, to a goodly extent dispute possession of the pine forests, with the Ottawa and its tributaries. This region is now also an important resource of the American mills on the shores and rivers of Eastern Michigan, a quantity averaging between two hundred and four hundred million feet of logs being annually towed across Georgian Bay and Lake Huron to the mills on the Saginaw river, Alpena and other points on the Huron shore.

With the total exhaustion of this field which is likely to be accomplished in one or at most two decades, the vast pine resources of Ontario will have gone the way of the, at one time supposed, inexhaustable resources of Michigan, Canadian Government estimates in 1895, placing the quantity remaining between Labrador and the Rocky Mountains at only 35,000,000,000 feet. In this connection it is not inappropriate to say that the volume of this log rafting trade, had in 1881 reached a volume of 80,000,000 feet, in rafts ranging from two to six million feet, and while an occasional raft meets with disaster in a heavy gale and sea, the losses of that year were estimated at but five hundred pieces out of an aggregate of 70,000 pieces rafted.

In 1892 there was rafted to the Saginaw Valley 184,500,000 feet from the Georgian Bay, increased in 1893 to 270,000,000 feet and in 1894 to 300,000,000 feet, the figures for 1895 being 279,229,743 feet, distributed to various points as follows: Saginaw river, 167,000,000; Tawas, 40,000,000; Alpena, 20,000,000; Sheboygan, 34,019,743 feet, and Detroit, 18,210,000 feet. The value of these logs is estimated to have been $11.00 per thousand feet. Michigan lumbermen have in recent years purchased large quantities of pine timber limits in the Georgian Bay district for the purpose of supplying their mills, and it is was estimated that the volume of logs to be supplied from this source in 1896 would equal fully 300,000,000 feet, the reduction in trade, however, greatly reduced this amount. The streams north of the Georgian Bay region, emptying into the Hudson Bay give no hope that with the exhaustion of that district, new territory can be relied upon to supplement their supply. This more northerly region is described by explorers as being but scantily timbered with small poplar and alder with an occasional belt of spruce timber, but we have yet to learn of any considerable, or even restricted forests of pine. To the west of the Georgian Bay, the north shore of Lake Superior presents no attractions to the lumberman, it being of a mountainous character, with little timber of any kind, until the region of the Lake of the Woods is reached, whence to the chain of lakes north of Winnipeg is found an inferior growth in considerable quantity, of a comparatively scrubby white pine interspersed with the Norway variety, and with the increasing aridity of climate the limit of valuable pine is reached, the timber to the north and east to Hudson Bay, being of a scrub poplar and alder of little or no value as a building material.

Among the islands of the Georgian Bay, and as well on the main land is found much valuable white and yellow cedar, a forest product which in no section of the continent was esteemed of value until about 1875, when a demand was created for telegraph and telephone poles, shingles and street paving blocks, to an extent which speedily brought this hitherto despised and neglected product into a prominent position as a commercial factor.

The yearly product of the Canadian forests in commercial form is from one to two billion feet board measure (including the manufacture of Quebec and the eastern provinces) averaging for many years past about 1,500,000,000 feet; of which quantity from 500,000,000 to 600,000,000 feet has found market in the United States, increasing in 1896 to 900,000,000 feet, although it must in fairness be stated that from one-fifth to one-sixth of the officially reported imports to this country are reported by the United States authorities as having been brought in bond for re-export to other countries; the balance of the Canadian shipments finding market in England, South America, and the West Indies.

The exports of square timber and staves was mainly from the forests adjacent to Lakes Ontario and Erie and to those sections which were of convenient access to the great lakes. Prominent among these may be named Hamilton at the head of Lake Ontario, and the ports of Lake Erie west to the Detroit river, the river Thames and the region about Rond Eau being originally, especially prolific in those valuable hardwood products, combined with whitewood, cherry and black walnut of most excellent quality. The present markets of Canada are largely confined to pine products, with Ottawa on the east, and the Georgian Bay on the west as the chief manufacturing points.

The main shipping points of the earlier days of the trade may be stated as Ottawa, Brockville, Bay of Quinte, Whitby, Coburg, Port Hope, Toronto and Hamilton on Lake Ontario, and the Grand River, Port Dover, Port Rowan, Big Creek, Port Burwell and Rond Eau on Lake Erie, while the mills of Georgian Bay have proved a no inconsiderable factor since 1850, while yet the development of that section must be ascribed to those later years beginning with 1883-4 when American capital and energy was employed in the building of mills, and the towing of logs across the bay and lakes from the Spanish and Serpent rivers to the mills on Saginaw Bay and Detroit River.

With the development of the country bordering on, and west of, Lake Superior, not only the pineries of Minnesota, but those of the Lake of the Woods, and the chain of Canadian lakes about Winnipeg have succeeded to the prestige so long enjoyed by the now nearly extinct forests of Michigan and Wisconsin.

ANCIENT RECORDS.

Recurring for a moment to ancient history, if any history of the American continent may properly be thus designated, we may profitably consider the grounds for asserting that there were saw mills in the Northwest more than one hundred years ago. In the so-called "Haldimand papers" on file in the governmental archives at Ottawa, Canada, we have the most complete history of the French and English occupancy of Canada and the country west and south, to the mouth of the Mississippi, which is known to exist. These papers go back to the earliest settlement of the northern portion of the continent, and consist of military orders, and letters to and from the military commanders, to the authorities at Ottawa and London, and include a complete history of the dealings of the French and English, with the various tribes of Indians, down to and even later than the close of the war of 1812-15. These papers published in the Pioneer Societies' reports of Michigan history, are replete with valuable information, much of which had never been made public until thus published. In volume 19, page 359, Lieut. Col. John Campbell writing from Montreal under date of October 5th, 1778, says:

> "* * * The second party of Indians that went west down Lake Champlain returned yesterday, * * * left the saw mill on the banks of Otter Creek on the 29th of last month, and did not see any appearance of work there; the mill appeared utterly useless, and they were informed by one McIntosh of the Royal Highlanders, now living close to the mill, that they have been so for a long time."

This of course refers to the east rather than the western country, but on page 411 of the same volume we find a letter dated Montreal, May 13th, 1779, as follows:

> "Sir: I have directed Mr. St. George to furnish good men for the canoes employed to carry Indian presents to Michimilimackinac and hope they will be ready to start in a few days, I was informed at the Cedars that a store 40 feet long and 20 feet wide can be completed in the autumn with ease, if it is begun upon in the month of July; boards for the roof and planks for the sides at the saw mill a few leagues up the river, and beams for the frame, will be cut as soon as the waters have sufficiently fallen to allow men to work in the swamps."

Mackinaw as we now write it, was for many years subsequent to 1760 one of, if not the most important, post in the entire northwest, from its proximity to the hunting grounds of the Indians over a vast expanse of territory, and was until the termination of the war of 1812-15 the central and leading point for all expeditions of trade or war in the northwest, and while the demand for lumber was not abnormally large, yet it is not surprising that such a mill as was known in those days, of a capacity of possibly five hundred feet per day, should be found of great utility. In the entire collection of the Haldimand papers we have been unable to find any further reference to this mill, which was no doubt located upon the Pine River of the Upper Peninsula, which empties into the lake a few miles from Mackinaw island.

Under date of 1780, (under that division of the records known as "Col. Le Balmes' papers,") we find the following record:

"The vessel which came from Michimilimackinac to carry some provisions as they arrived last autumn, carried deals, planks, etc., to Fort St. Clair, twenty-five miles from Detroit, on the right bank of the river which opens into Lake Huron at little Lake St. Clair."

That the revenges of the war of the Revolution, did not cease with the treaty of peace, we may judge from the following excerpt from a communication from Archibald Campbell, Esq., to Gen. Frederick Haldimand.

> Jamaica, October 16th, 1783.
>
> "Sir: Your excellency will see by the order which His Majesty in council was pleased to pass on the 2d of July last, that all vessels belonging to the United States of America, are prohibited from landing their cargoes in His Majesty's West Indian Islands. As this restriction cannot fail to produce the greatest advantage to trade of Quebec, I embrace the earliest opportunity of acquainting your Excellency that vessels from your government loaded with staves, boards and lumber of all kinds, flour, corn, fish and horses will meet with good markets in this island."

Continuing our researches in chronological order, we find:

> "A report of the standing committee nominated by your Lordship, (Henry Guy Lord Dorchester, Captain General and Commander in Chief of American Colonies, etc.) December 29, 1788, to bring information concerning inland navigation, etc. There are at present four registered vessels navigating the lakes * * that on September 8th the Good Intent cleared out at Kingston for Quinte Bay, and again 24th, Kingston to Oswego. She brought to Kingston 1,000 feet of pine boards, 10 barrels of Pearl Ashes, and 1½ tons of hay."

From these last two quotations it would appear that so early as 1783, lumber was manufactured at some point convenient to Quebec, in quantities sufficient to warrant its export, while in 1788 the manufacture at Bay Quinte was of extent sufficient to ship beyond the limits of the Bay.

That the manufacturers of that period were not in the business simply for health is evidenced by the following:

"Copy of an estimate of expense attending the building of a provision store, by order of Lieut. Col. England, Commandant at Detroit, June 15th, 1793:"

180 feet pine timber 10x12 180 feet pine timber 5x6 180 feet pine timber 6x6 700 feet pine timber 4x6 250 feet pine timber 6x10	£23,	5,	7½	
500 feet pine boards one inch	27,	6,	10½	
15,000 shingles	23,	8,	9	
20 pounds 20d and 30 pounds 4d nails	7,	10,	0	
Carpenters and shingles	£30,	0,	0	£111,11,3

Volume 12, page 648, of Pioneer History, still quoting from the Haldimand papers, gives the following "specifications for building a hospital at Amherstburg military-post, under date of July 7th, 1799:

> 142 feet 8x10 oak; 224 feet of 6x10 in lengths of 28 feet; 180 feet 8x8 18 feet; 142 feet 6x8; 420 feet of pine 4x4; 12 pieces of oak 8x10 and 10 pieces 6x8, 28 feet long pine; 4 pieces 22 feet 6x8 x6x6; 32 pieces 18 feet 7x8x5x5; 7 pieces 6x10, 7 feet long; 160 feet lineal 5x5; 380 feet 4 inch quartering; 10 3 inch pine plank; 750 feet ½ inch; 1200 feet one inch boards; 27,000 lath; 9,000 shingles."

All of which presupposes a saw mill at some point convenient of access.

Recurring again to the east, the records show the first boat load or raft of lumber or timber from the mouth of the Gatineau river, a main tributary of the Ottawa, to have been in 1806, and it is estimated "that from that date to 1865, 20.000 square miles of the area watered by the Ottawa and its tributaries had been denuded of merchantable timber, being one quarter of the estimated area of pine production in the Ottawa district." Government estimates place the cut of pine timber from 1826 to 1867 at 6,315,000 saw logs, and 7,480,000 pieces of square pine timber, while from 1867 to 1893 the production of the Ottawa district is stated at 76,692,700 pieces of pine, of which 72,236,200 was in the shape of saw logs.

The Hon. J. K. Ward in a lecture (1895) before the Natural History Society of Montreal, upon "The Timber of Canada," divided his subject under two heads, and said:

> "The figures as to areas and quantities are approximate, as I consider it extremely difficult to estimate the quantity of good timber on such a vast territory as Canada. I have never seen two lumbermen agree as to what a single limit of fifty miles contains. In my experienc of fifty years I have known men who could find nothing upon a limit, worth going after, while others have worked and done well on the same territory. There are about 6,000 saw mills in the Dominion, employing during the season of say 150 days, not less than 15,000 men in and around the mills, sawing, shipping, piling, etc. In the woods during winter, getting out the logs and timber, and in river driving there are about the same number. Six thousand mills averaging 400,000 feet per season makes up the apparent output of all the mills. This quantity is sawed in a single day by some of the larger mills, while many of the smaller mills do not turn out 200,000 feet in the season. The difference in the apparent output of the mills is 2,500,000,000, and that returned as cut on public lands, is made up as taken from private lands, and the Crown lands of Nova Scotia, of which we have no returns. The area under license in the different provinces is about 100,000 square miles yielding annually about two and one half billion feet board measure of sawed lumber, principally pine and spruce and hewed timber divided as follows among the different provinces:
>
> Ontario 7,140,000 logs, producing 728,000,000 feet board measure principally pine; 40,000 pieces red and white pine equalling 42,000,000 feet board measure; 133,000 pieces of boom timber or 2,600,000 feet board measure the average size of pine and spruce logs being about 90 feet; the ordinary revenue being $939,000. Area under license, 21,500 miles; area unoccupied, 17,000 miles. For Quebec the area under license is 48,000 miles, pro-

ducing 6,170,000 spruce and pine logs, equalling 683,000,000 feet, together with 18,500,000 feet of pine, spruce and birch timber; railroad ties and other wood 22,500, or 12,000,000 feet board measure; pulp, cedar, etc., 12,000 cords; revenue derived, $892,000. The products of the forest are disposed of about as follows: Exported sawed timber and lumber, $24,000,000; 300,000,000 feet of sawed logs, $1,040,000; railroad ties, pulp wood and bark, $27,000,000.

The first timber shipped to Europe from Canada was sent from Quebec by Talon in 1667; Lieut. Hocquart shipped timber and boards in 1735. In 1823 three hundred cargoes were shipped from Quebec. Touching the pioneers in the business; the late Allan Gilmour and relations of the same name, carried on for many years a large business on the North Nation, the Gatineau, and at Trenton, Ontario, the younger branches of the same family continuing in the business. Philomen Wright built his first saw and grist mills in 1808; they were unfortunately burned down, but were rebuilt in sixty days. About eighteen years prior to this, the first saw mill on the Ottawa had been built at Point Fortune by a Mr. Story, it boasted one upright saw, and it is recorded that when the man in charge gigged back the carriage for a fresh cut, he would sit down on the log to eat his dinner, and was about through by the time the cut was finished. By the present system of sawing the same cut is made in about four seconds.

Among our successful lumbermen of late years I may name the late James McLaren of Buckingham, Peter McLaren of Perth, Bronson Weston & Co., Perley & Pattee, J. R. Booth, Alexander Fraser of Westmeath, W. Maskey, and the late firm of Hamilton Bros., whose father was one of the first in the trade at Hawkesbury, Ontario. West of the Rocky mountains Canada contains vast quantities of valuable fir timber, the manufacture of which is rapidly increasing to meet the wants of the Pacific coast and islands.

As to Canada's method of lumbering. When circumstances will permit we pile or skid before the snow becomes too deep. When the snow is deep we draw direct from the stump to the lake or river; our style of living in the shanty, and in fact the building itself differs in various parts of the country. Until very recently particularly in the lower St. Lawrence, the fare of the shantyman was very primitive, the commonest tea being quite a luxury, and the only variety in the bill of fare was, that it consisted of pea soup, bread, pork and beans for dinner, and the same with the addition of tea for supper, and minus the pea soup, the same articles for breakfast. On the St. Maurice for many years, the living has been good and substantial, with comfortable shanties provided with stove, tables, and bunks, the cooking being usually done in an outside compartment. The shantyman's condition, however, is improving with the times. Our shanty men whether English or French as a rule are as good axe men, as expert drivers and canoemen, as can be found in any country. Our people are well up in dam building, as well as in the making of slides, and clearing away the rivers to facilitate driving.

In connection with this subject it will not be inappropriate to mention the government statistics of 1862 regarding the extent of the lumber manufacture of the province of Nova Scotia, which state the number of saw mills at 1401; shingle mills, 130; lath mills six. The manufacture is stated at 25,072,000 feet of deals; 46,607,000 feet of pine boards; 36,422,000 feet of spruce and hemlock. In the same year 7,659,000 staves and 22,592, tons of square timber is noted. The value of these products is not stated, but the forest exports for 1860 are stated at a value of $767,136.

The exports from New Brunswick in 1854 are stated at 127, 567 tons of timber; 258,000,000 feet of deals; 19,256,000 feet of boards and plank; 3,794 masts and spars; 15,248 ship knees; 2,223 cords of lath wood; 19,672,000 sawed lath; 24,837,000 shingles; 142,672 box shooks. The value of forest products in 1860 is stated at $3,180,428; 1861, $3,447,-910; 1862, $2,810,188.

In the same reports which are of a somewhat desultory character we find the shipments from Quebec for the three years named, to December 1st, each year, as follows, viz.:

	1860.	1861.	1862.
Oak	$1,485,400	1,725,160	1,463,680
Elm	1,021,560	1,269,329	1,099,200
Ash	88,440	96,560	99,480
Birch	462,160	255,320	165,480
Tamarac	58,240	50,240	57,120
White, square, waney pine	18,252,600	19,447,920	15,493,080
Red Pine.....	2,502,880	2,855,240	2,491,120

The grand total value of exports of merchandise from Canada to the United States, in 1862 had reached a volume of $15,063,730, while those from the United States to Canada for the same year amounted to $25,173,157. The total of Canadian imports for that year were $48,600,683, and the exports $31,679,045 the great bulk of the Canadian trade and commerce at that date being with the United States, the volume of Canadian imports from the States having risen from $1,530,000 the figures of 1853. In 1863 mills at Barclay Sound, Vancouvers Island, were reported, with a production of 15,000,000 feet for nine months of that year.

CHAPTER II.

PIONEER HISTORY.—CHARACTER OF TIMBER IN OHIO, INDIANA, MICHIGAN AND CANADA.—AREA OF PINE BELT OF MICHIGAN.

ALL statistics upon the subject of lumber, must be taken with a large grain of allowance, as even in government estimates, and much more in private or newspaper statistics, it is undeniable that a large percentage may safely be added, while if it be the desire to arrive at an estimate of the cubic feet of timber denuded from a given piece of land, it is safe to add fifty per cent. to to the given statement of log or lumber production.

As a rule the pine timber of Canada was not equal in quality to that of Michigan, but in the region embraced by the counties of Haldimand, Norfolk Brant and Elgin, with some scattering bodies in other counties, the quality has never been exceeded by that of any other section of the continent, it being principally of that grade of *pinus strobus* known as "Cork" pine or "pumpkin," a fully ripe timber of large proportions, cutting up with a freedom from knots and other defects, and of a softness of texture which rendered it highly desirable in the building arts, and in the commerce of the continent.

Up to the beginning of the present century the settlement of the country embraced in the present states of Ohio and Indiana, had been very limited, and while pioneers were drifting into the Western Reserve, or as it was known, "New Connecticut," the record of saw mill building revealed by our researches is exceedingly limited. The country to the east, in Pennsylvania was slowly developing, and mills were being built on the streams tributary to the Allegheny river, whose head waters flowed north and west, and it is not to be doubted that the limited quantity of lumber consumed by the settlers, was in many instances handled and hauled over long distances by ox teams which were the main dependence of the earlier days for all means of transportation. Indeed it is rather more than a legend that the first lumber used in Chicago in the period previous to 1833 was hauled by ox team from the Ohio river.

The country now known as Indiana was organized by act of Congress, May 17, 1800, with the seat of government located at Vincennes. In a history of Indiana published in 1810, it is recorded that the State contained a population of 24,520, and that there were thirty-three grist mills, fourteen saw mills, (no doubt all were run by water power), and three horse mills, with eighteen tanneries, twenty-eight distilleries, three powder mills, 1256 looms, and 1350 spinning wheels. The value of the manufactures of cotton and wool, spun in mills, is placed at $150,000; of wool, cotton, hempen and flaxen cloths, $159,052; nails (30,000 pounds) $4,000; tanned leather, $9,300; distillery products, 35,950 gallons, $16,230; powder, 3,600 pounds, $1,800; wine, 96 barrels, $6,000; with also a production of 56,000 pounds of maple sugar.

The mills of this early day were of the ancient pattern, driven by the water of small creeks, to overshot or undershot wheels, the saw being strained to a frame within the cross-beams which with the side posts formed a support to the gate, which was connected by a pitman to the crank on the end of the wheel shaft, which was usually of wood. Of such a mill we find a record as the first mill built in Posey County, by James Rankin, in 1817. This mill was located on Black river, and ran but a few months before a flood in the river swept it away, and we find no record of its having been rebuilt. A mill built by a man named Grannis on Cox Creek, was probably the second in chronological order, but of this we find no record beyond the simple mention, before this period most if not all the sawed lumber in use by the settlers was no doubt manufactured by the whip saw, in "pit" sawing.

In 1810 Asa Winter of Connecticut made his way to a point in what is now Warren County, Pennsylvania, four or five miles from the New York boundary, on a stream leading to the Allegheny, which offered a good site for a mill. Here he cleared up a village site, built two or three houses, a saw and a grist mill, obtaining machinery at great expense from Pittsburg. His nearest neighbors were two, three, and five miles distant; the mills were completed and did some work, but no village lots were sold, nor was any attempt made to start a "boom" town, Mr. Winter being content with building a home for himself and his family in the wilderness which he was optimistic enough to believe would soon prove attractive to many others, as it had to himself. Two years later he returned to Connecticut for his family, and with them again started for the west on the twelfth of October, 1812. On the 30th of October he reached Buffalo, then a hamlet of two hundred population. Sending his wife and children by ox team and on horseback through the forest, over which there was but a slight trail cut out, he took a small sailing craft for Portland the nearest point to Chatauqua Lake, whence there was a trail to his village. He expected to reach his destination long before his family should arrive, and have some comforts prepared, with which to greet them. The hardships endured by both parties are at this day almost incomprehensible; sickness and disaster befel the party on land, while shipwreck and the loss of a goodly portion of their scanty effects fell to the part of the father, who was not heard from by his anxious family in a new country which was but a wilderness, until, after more than two months of alternating hope and despair, in which it seemed impossible that he should ever again be heard of or from, he reached his home and rejoined his loved ones, late in December, and succeeded in his enterprise of founding a settlement, and his little saw mill proved a by no means unimportant factor in the development of that section, which has since been recognized as one of the choicest localities of the western world. In 1816-17 Mr. Winter built a saw and grist mill on the border of the village of Warren, upon a stream which to this day is known as Winter's Run; these mills were operated by him to as late as 1834.

In Smith township of Posey County, Indiana, Johnathon and William Moultry are recorded as doing a business in lumber manufactured by whip saw, and later we find the Alcorn grist and saw mill, and the Elperman saw and grist mill plants located on Big Creek. James Black a native of North Carolina settled at Mt. Vernon, Indiana, in 1806 and built a saw mill on Big Creek, in the township of Lynn, which later was operated by his son Milton, until his death in 1838. North & McFadden built a steam mill at Mt. Vernon in 1834, which was destroyed by fire in 1837, but was soon after rebuilt.

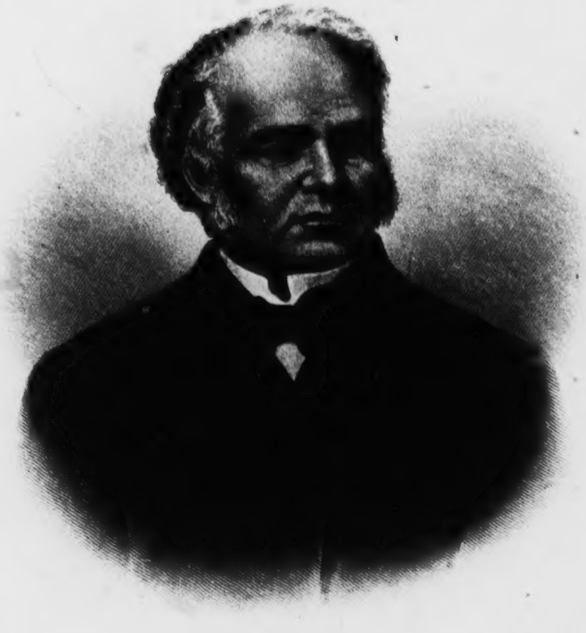
New Harmony township was settled about 1812 by the "Rappites" a Socialistic organization, who produced needed supplies of lumber by the use of the pit saw, until in 1820 when they erected a saw mill of which we find no record beyond the mere mention. The North & McFadden mill with which one Virgil Soaper was also connected, was no doubt the first steam saw mill in the State, and is mentioned by one historian as having been erected in 1831, and soon after enlarged, and buhrs added for the grinding of corn; this historian gives 1838 as the date of its burning, and after asserting that it was at once rebuilt, adds that it ran until 1853 when it was again destroyed by fire.

Robb township was heavily timbered with different varieties of oak, hickory, black walnut, poplar and ash; record is found of one twenty acres from which 75,000 feet of the finest black walnut was taken, and as it was customary to use only the finest logs from the tree, it may safely be asserted that the total timber destroyed in obtaining the quantity named, was not less than 150,000 feet. Throughout Ohio and Indiana black walnut was so plentiful that it was selected for rails for fencing, because of its free splitting qualities, and many farms are even yet to be found which are fenced with black walnut rails, while in the growing scarcity of timber, many fences have been taken down for manufacture into such smaller articles for which they were suited.

Bethel township in Delaware County, through which passes a branch of the Wabash river, while possessing much inferior timber, contained on its table lands, large growths of valuable walnut, oak, ash, yellow poplar, sugar maple, and gum, and speaking in general terms, this may be taken as applying to the State at large. As a mass, the timber of Indiana, especially the walnut, must be characterised as being the finest in the country, while its oaks are unsurpassed in quality by the growths of any other section. On one of the bayous in Delaware County, John F. Morehead at an early day established a saw and grist mill, and was succeeded in later years by John Vanvay, who operated a steam mill. In the records of Elkhart County we find mention of Jacob D. Schrock, who built a mill in Clinton County in 1840, and John Smultzer, who in 1849 built at Waukarusa, and carried on a mill business under the name of J. S. Smultzer & Sons, later known as the Wakarusa Lumber Co.

It is unfortunate that the immensity of value of the forestry industry of the country has never been adequately appreciated, and in historical and pioneer volumes, it is the exception rather than the rule, that the saw mills of the new settlements receive even a brief mention. So far as Ohio and Indiana are concerned, the manufacture of lumber from native timber has never attained to the dignity of a commercial factor as that term is applied to the white pine districts. Nevertheless from 1840 to 1860 there was a growing trade in the shipment from those points which could be reached from canal or by the new railroads which during that era began to gridiron the States, and by which lumber manufactured in the interior could be delivered at lake ports, and the production of walnut lumber, oak timber and staves, reached a not inconsiderable volume; still later from 1875 to the present time a large volume in manufacture of oak, poplar, ash, cottonwood, sycamore, gum and other species of timber has been produced in modern mills, and finds market in all sections which can be reached by rail or water communication. At a date prior to 1836, mills were in operation at the mouth of the Huron River, near Sandusky, Ohio, of which we can find no record save the testimony of the late Judge Albert Miller of Bay City, Michigan, that he, in 1836, purchased the boilers and machinery of a combined saw and grist mill which had been in operation at that point. There was not at that or any subsequent time any extended manufacture of lumber, and we find no record which speaks of the shipment of sawed lumber from any of the Ohio ports up to 1850, and then in but limited quantities. That such manufacture as was undertaken was of a limited character and largely confined to the local uses of the inhabitants, becomes apparent when we consider that the forests of the country south of Lake Erie and west of the Alleghenies, comprised wholly a hardwood country, and that the use of hardwoods was almost wholly confined to black walnut and cherry, there being few localities in the East which could not supply any other wood required by furniture or carriage makers from their own local forests.

We have already shown that the known area of the pine belt was originally confined to Canada and to the region which may be shown by a line drawn through the map of Michigan, extending from the north line of Lake St. Clair on the East, practically through the centre of the counties of Macomb and Oakland, across the southwest corner of Genessee, centres of Shiawasse, Clinton, Ionia and Kent, to the east line of Ottawa, where dipping to the south, it passes through the eastern part of Allegan and northern part of Van Buren, to Lake Michigan on the north line of Berrien County. South of this line little or no pine timber was to be found, while the country was rich in black walnut, cherry, whitewood, oaks and ash of different varieties, hickory, beech, maple and sycamore, with some chestnut and butternut.



Samuel Peters

North of such a line as we have described, the entire region to the Straits of Mackinaw could appropriately be described as a "pine" country, although in many sections, as in Benzie, Grand Traverse. Kalkaska, Antrim, Otsego, Charlevoix, Emmett and Cheboygan counties, and to a lesser extent in a few other counties, large tracts of hardwoods abounded, and in several of the counties predominated. with but slight intermixtures comparatively, of pine.

The Upper Peninsula was largely a hardwood country, with considerable tracts of pine interspersed. The soil of the hardwood sections of the State, is largely of a rich alluvial character, affording excellent farms, while in the pine belt the soil is of a lighter and more sandy nature as a rule, although the finest timber was found in sections where the soil was favorable to the growth both of pine and hardwood, and where pine was thus found mixed with hardwood, its quality was vastly superior in the production of the finer grades of lumber, and in freedom from those defects which militated against its use, in the finer work of the carpenter and builder. In the earlier history of the State, and before settlement had penetrated beyond the exclusively hardwood producing section on the south, the manufacture of the mills was confined almost exclusively to whitewood and basswood which were found in great abundance, and being easy to work at once found favor in the eyes of the settler, who in too many instances burned up all other varieties of timber in the clearing of his farm, but retained a sufficiency of the softer woods for whip (pit) sawing, to such extent as he considered necessary for making doors, shelving and other uses of the farm, in the construction of his log cabins, and later, his more pretentious frame dwelling or out buildings. It was not until the pressing immigration of 1835-6 leading settlers to seek a more northerly course, that the pine regions were penetrated. and the value of that timber demonstrated, while a State census report published in 1837, discloses the fact that in that year there were no less than 433 saw mills scattered throughout the young State, of which not more than a half dozen were cutting pine timber.

CHAPTER III.

LOOKING BACKWARD.—ANCIENT HISTORY.—EARLY EXPLORATIONS.

WE may profitably spend a few moments in the consideration of ancient history, if that term can be applied to any portion of the American continent since its discovery by Columbus in 1492. That Detroit was known to the early explorers of the Northwest is a well-known fact, the French having visited this locality in 1610, while maps are to be found in governmental archives, in which Champlain under date of 1612 gives a very correct idea of the Detroit river and the neighboring lakes, and as well a very fair description of the surrounding country. There can be little doubt that about this time a missionary station was established by the "Ricolletts" near the foot of Lake Huron. While no printed accounts of the many expeditions of the seventeenth century are available, before that of Joliet in 1674, we yet have a very accurate description of the whole chain of lakes in the introduction to an account of the expedition of De Courcelles to Lake Ontario, written in 1671. That the country had been considerably explored, and was at this time not wholly unknown, is evidenced by the history of La Salle's expedition. In 1685 the English determined to push their settlements along the lakes as far as Michimilimackinac and Lake Superior, as a barrier to French colonization and monopoly of the fur trade. In 1686 the Governor-General of New France hearing of the designs of the English, sent orders to Gen. De la Durantaye in command at Mackinaw, and to Gen. Duluth, who had charge of Indian affairs over the upper region of the lakes, to establish some points in the "Saghinaw," and a fort was built by Duluth at or near the head of St. Clair River, which he named Fort St. Joseph, and he also established a fort at Detroit. In 1695-6 several Frenchmen wintered in the Saginaw Valley, and were regarded by the Indian Chiefs as under the supervision and direction of Gen. La Motte Cadillac, who was then in command of the entire northwest with headquarters at Mackinaw. Detroit as a military post no doubt dates back to 1685-6 although its permanent settlement may be stated as dating from 1701.

Antoine de la Motte Cadillac, of whom previous mention has been made, was born at Toulouse, France, March 20th, 1661. He was educated for the army and came across the seas to Quebec in 1682. In 1694 he was appointed to the command at Michimilimackinac. In 1699 he visited France and laid before the King plans for the establishment of a permanent settlement at Detroit. His plans meeting with approval he returned, and on July 24, 1701, he founded the first permanent settlement in Michigan at Detroit. He did much to teach the natives in the ways of the whites, encouraged the clearing and cultivation of land, erected mills, and from time to time sent out men to explore and establish posts throughout the territory. For the day and time his efforts may be considered successful and bore increasing fruit in the settlement of Western Canada and the country bordering on Lake Erie and the Detroit River, which was as rapid as it would seem judicious to have it under the then existing circumstances.

First and last the region which includes Detroit has changed its flag, the emblem of nationality, five times. First visited by the French in 1610, it remained under the Lily of France until its transfer to England in 1760, and the Red Cross of England floated proudly until the Revolutionary War, during which Detroit was headquarters for the British troops until its cession to the United States by the treaty of 1783, although the English occupation continued until 1796, when for the first time the Stars and Stripes became its emblem of nationality, and proudly floated over the State of Michigan. In 1812 it was again surrendered to the English, but was recaptured in 1813, when again the Stars and Stripes became the emblem of its nationality. Detroit has been the scene of one surrender, more than fifty pitched battles, and twelve horrid massacres.

Of the early mills of the northwest, it is authenticated that as early as 1690 a saw mill was built at the mouth of what was later known as Bunce Creek in St. Clair County, by a Frenchman from Montreal, and ninety years later, in 1780, a mill was built at the same place by Enos Morass, whose son Ignace Morass erected a mill on Mill Creek at Abbotsford in 1816, which was purchased in 1831 by James Abbot, who rebuilt and added a grist mill; Judge Bunce erected a third mill near this site in 1817. Some time previous to 1809 Meldrum & Park built a mill at the mouth of a creek below Marysville. It is related that Enos Morass had a mill on Black River (probably the same mentioned above) some years before the war of 1812, and contracted with the United States government to deliver spars, masts and ship timber at Detroit during the winter of 1811-12, hauling over the ice of Black river, St. Clair lake, and Detroit river, which was at that time considered a most extraordinary and hazardous undertaking. His was no doubt the first mill built on Black river.

It has been asserted (on authority of Judge Campbell of Detroit) that a water mill was built on Mays Creek just below Detroit, in or about 1734, and that in 1790 Jean Baptiste Beaubien built a house and saw mill on the north shore of Lake St. Clair, about half a mile above the Detroit River near what it now known as the Grosse Point Water Works, and this is believed to be the mill spoken of above as that of Meldrum & Park. Mills are mentioned as of about this period on Connors Creek, and as late as 1830 ruins of a mill were to be found at Bloody Run where it is crossed by Jefferson Avenue, Detroit, but these were probably grist mills run by wind power, for the accommodation of the sparse population, who must otherwise depend upon the crushing of grain with rudely constructed mortar and pestle.

The very ancient French houses at Detroit which have been familiar objects until late years, were largely built of Cedar which is well-known for its durability, and for its free rifting qualities, by which the early settlers were enabled to split out much of the lumber necessary not only for roof but as well for the siding, doors and windows of their houses.

That there was a saw mill somewhere in the pine country in close proximity to Lake St. Clair or Lake Huron as early as 1742, is well authenticated, that it was the same heretofore mentioned as located in 1734 at Mays Creek is altogether likely, that it existed is made certain by a government report upon the resources of the country in 1749, in which the mill and the lumber are both mentioned. One of the first massacres of the Pontiac war, that of Sir Robert Davis and some companions occurred near this saw mill.

Capt. D'Brehm of the British Army writing to Gen. Haldimand from Niagara, July 27, 1779, says:

"I left Detroit 15th inst * * * landed at Presque'ils and saw the old retrenchment still remaining, but the whole covered with bushes and 'Weads,' even some trees, the brick chimney of 'Coll' Boisquetts, however, is standing, and the standing stone walls of the powder magazine, and the stone walls of the house where the saw mill had been."

This no doubt refers to the ruins of the mill above referred to as existing in 1734-42.

That there was a mill at Mackinaw in 1780 is hardly to be doubted in view of a bill of which the following copy is taken from the "Haldimand" papers, which constitute the most valuable records of Colonial days.

Michimilimackinac, 22d October, 1779.

Statement of the work which I have done for the King by order of Major De Peyster, Governor at Michilimackinac:

		Livres.
1780	January 8th—Five horse collars at 50 each	.250
	March 5—For having pulled down a house of twenty-four feet long by twenty deep, and having transported it six leagues on rollers of whitewood; having furnished the necessary wood for repairs and having put the keys of said house into the hand: the said house for the great chief of the Sauteaux named Macquiquiovis for the price and sum of 4,500 livres of expense	4,500
	For having been down the river beside the house of the Chief Macquiquiovis to examine and find the pineries of red and white pine, and to make a saw mill, and examine the different sorts of wood and land for the good of the King	.250
	For having been detained six months to conduct a party to the Illinois river in the capacity of guide, and promised one dollar a day	1,080
	That in order to induce me to abandon my interests he would bring down any one hundred and twenty packets at the expense of the King, for which I was obliged to pay the sum of	5,400
		(Livres) 11,480

(Signed) P. Durand.

On the second of December, 1795, Gen. Anthony Wayne on behalf of the United States made a treaty with the Sachems, warriors and Chiefs of the Wyandotte, Delaware, Shawnee, Ottawa, Chippewa, Pottawattomie, Miami, Ell River, Weas, Kickapoo, Piankashaw and Kaskaskia tribes, which is known as the Treaty of Greenville. This treaty conceded the Post at Detroit and a strip of land between the river Raisin on the south, Lake St. Clair on the north and a line, the general course of which was to be six miles from the west end of Lake Erie and the Detroit River. On the 17th of November, 1807, General William Hull then Governor of Michigan, held a treaty council at Detroit with the Sachems, Chiefs and warriors of the Ottawa, Chippewa, Wyandotte and Pottawattomie nations and obtained a cession of all the land within the following boundaries: "Beginning at the mouth of the Maumee river, up the middle of that stream to the mouth of the great Auglars river; thence north until it intersects a parallel of latitude to be drawn from the outset of Lake Huron, which forms the St. Clair river; thence running north east to White Rock in Lake Huron; thence east until it intersects the boundary line between the United States and Canada; thence southerly down the lake and river St. Clair; through Lake St. Clair and down the River Detroit to a point due east to the mouth of said Miami (now known as 'Maumee'), thence west to place of beginning." The importance of these grants will be made manifest in future pages of this history.

CHAPTER IV.

EARLY MICHIGAN.—THE PIONEER SETTLERS.—DISCOVERY OF PINE.

IT is difficult to place the erection of the first of the mills of the present century. In the various counties of the lower part of the State of Michigan we find several claimants for the honor of "first." Subsequent to the mill at Mackinaw in 1780 we find no authentic record of a saw mill until about 1810, when one Stewart, (whose son Aura P. Stewart, a pioneer of St. Clair county, relates the story), came from New York state to seek a home in the west, making his way through what were then the wilds, with but a scant settlement of Canada. On arriving at Moraviantown on the river Thames he fell in with a Connecticut man named Ransom, who had been a resident long enough to have cleared a large farm and to have built a saw and grist mill and to become the leading man of that region. Ransom had made a contract with one McGregor of Windsor (which was at this time a thriving British settlement) to furnish timber for masts, spars and other timber needful in the construction of a British fleet which was to be built at Windsor for the purpose of controlling the lakes. The forest about Moraviantown was of the finest quality of oak, interspersed with walnut, whitewood and other valuable timber, than which none ever grew more suitable for shipbuilding purposes. Stewart entered into a contract with Ransom to select and hew the timber in the woods, and to deliver it on the river bank ready for inspection. Ransom was so well pleased with Stewart's execution of the contract and with the inspection, which resulted in his at once obtaining part of his money in payment, that he went on a spree, which ended in a fit of despondency and temporary insanity, during which he cut his throat and died before making settlement with Stewart, who now contracted with McGregor (the original contractor) to deliver the timber and lumber at Malden, which he did by rafting it down the Thames to and across Lake St. Clair, but on passing down the Detroit River a heavy gale caused the raft to go ashore below Hog Island on the American side, where it was seized by the customs official, who knew it to have been intended for British gunboats, and proposed to confiscate it for the crime of coming ashore in American waters. Stewart, however, took the case to the United States District court, where he obtained a verdict in his favor, delivered the stuff at Malden and got his money.

A man named Trombly had a mill at Frederick, Macomb county, Mich., some time prior to the war of 1812, but of which we find no record beyond the immediate fact, it having rotted down before the memory of old pioneers of the county, leaving but its ruins to mark the fact of its at one time existence.

The currency of this early date was about as worthless in character as it has ever been at any time since; indeed it is questionable if it was not the worst the world has ever known. In many sections trading was almost wholly by barter of furs, shingles and labor; all sorts of experiments were resorted to and among them the issuance of personal due bills or promises to pay, a practice which was repeated fifty years later during the war of the rebellion, at first by individual and later by government "shinplasters" in the making of small change. The principal coins of the early century were foreign silver, and as the shinplaster was recognized only in the locality of the residence and business of its issues, it became necessary to produce small change by the manufacture of "cut money," or the division of Spanish and South American quarter dollars by halving or quartering thus providing the "six pence," "shilling," etc., which became the prevailing small change of the next quarter century. It was not long, however, after the inception of the practice, before it was found that dishonest persons still further clipped the coins, until it became necessary to adopt the system of value by weight, based upon the value of an unmutilated coin, if sold by the ounce. Prior to the war of 1812 the currency was almost wholly of Spanish and Portuguese gold and silver, with a goodly proportion of French coinage. The panic and depression of 1837 led to a resumption of the practice of issuing shinplasters, and cut currency, and one saw mill proprietor in St. Clair county, Michigan, added a turning lathe to his saw mill and turned out nests of wooden bowls, which were used as currency, having value according to the different sizes, and were current in a much wider field than was the paper promise to pay, being of a more stable and useful character.

Coming to the year 1818 we find a company organized as the "Pontiac Company," on November 5 for the purpose of purchasing land on the Huron River (so called) of St. Clair county, and the laying out of a town, but in 1819 the company selected a location in Oakland county, and the town of Pontiac was laid out and a saw and grist mill erected. During the same year John Hersey purchased a part of section 10, town 3 north, range 11 east; and built a saw mill on the waters of Paint Creek. It was not until March, 1820, that Oakland county was declared by Governor Cass to be an organized county.

Returning again to the war period we find an interesting record among the Haldimand papers which constitutes the only information we have of a saw mill at Sault Ste. Marie. At a date not given, but among the correspondence relating the war of 1812, is a document addressed:

To His Excellency, Sir George Provost, Bart., Captain-General and Governor-in-Chief in and over the Provinces of Lower Canada, Upper Canada, Nova Scotia, New Brunswick and their several dependencies, Vice-Admiral of the same, etc:

The memorial of the Hon. William M. McGillivary, Simon McGillivary, Archibald Norman McLeod, Thomas Thain, John M. McTavish and Henry McKenzie, trading at Montreal under the term of McTavish, McGillivary and company and Alexander McKinzie, agents for the Northwest company:

Humbly Sheweth:

(Here follows a description of the schooner Nancy, belonging to the Northwest company, and used and finally destroyed by the British government to prevent her from falling into the hands of the Americans, and of two new schooners built on Lake Superior and run over the rapids into the river St. Mary with a purpose to aid the forts at Mackinaw, one being the "Mink" of forty-five tons, captured by the Americans on Lake Huron, the other the "Perseverance," eighty-five tons, destroyed at Ste. Marie by the American troops), and goes on to say:

"That your memorialists estimate the said schooner Nancy at the sum of two thousand two hundred pounds sterling, and their account against the government for transport service at the sum of £1,486.5. * * * * The Mink £1,000, and the Perseverance £2,500. That they estimate their establishment of houses, stores and a "*New Saw Mill at Ste. Marie*," at the sum of Two thousand five hundred pounds," etc., etc.

From this it will be seen that a saw mill had been built at the "Sault" some time before the war of 1812.

Major Oliver Williams settled on the banks of Silver Lake, Oakland county, in 1818, purchasing 320 acres of land of the government at $2.50 per acre, one quarter of the purchase money paid down, the balance in five years, but before the expiration of this period an act of Congress reduced the price to $1.25 per acre. In 1819 he raised the first frame barn in the county, a building 40x40 feet, hauling pine logs from a small grove one and a half miles distant at the head of what was then known as Three Mile Lake. The lumber was whip-sawed by Sykes and Batcheller, two soldiers who had received their discharge from the Fifth regiment at Detroit.

Shortly after this time the Pontiac company put in a gang of men and soon stripped the small pinery, carting the logs to their mill at Pontiac, and this ended the Three Mile Lake pine timber supply.

The pioneer settler of that day felt perfectly free (as to a vast extent his successors of a later day felt warranted) in taking Uncle Sam's timber wherever he could find it, without unravelling the red tape of a grasping land office, and as everybody felt alike, and all were equally in want of timber for the building of dwellings, barns and outbuildings, there were few to find fault, or to enter complaint. This little taste of white pine whetted the appetite for more, and Ephriam Williams (a farmer) with David Corbin (his father's hired man) set out on an exploring expedition in the winter of 1820-'21 and in the course of a half day's travel, which took them into a hitherto unknown region, they discovered a large body of excellent pine. As they were returning home and before leaving the newly discovered tract, thy met two neighbors from near Pontiac, Colonel Calvin Hotchkiss and his father, who were out on the same errand as themselves. It was agreed that the discovery should be kept a secret until each party had secured the cutting of a nice bunch of logs, before the Pontiac Mill company should learn of it and strip the tract. Each party put in choppers and teams to haul logs to the mill which had been built by Williams and Phillips at Waterford. It was impossible, however, long to conceal their enterprise from the watchful outlookers of the Pontiac company, and the news soon spread, and in but a very short time every acre had been entered at the land office. This, however, did not hinder the neighbors from utilizing the time night and day in the endeavor to secure the saw logs before the purchaser should be able to show title, and the legal rights of the purchaser were not always scrupulously considered, even after his title was secured, and those who cut the logs were not always fortunate enough to secure them against those who wanted pine logs and took them, on the principle that the man who cut them had no greater right to them than the man who had a team and wanted them. The demand for pine lumber among the settlers was a pressing and active one, and the mills at Waterford and Pontiac were kept busy sawing stock which found ready sale at Ann Arbor and other points south, which could be reached by floating the lumber down the lower Huron River to Ann Arbor, in cribs of four to six feet in width and six to eight courses deep. These pineries were about the southermost limits of the pine growth.

It may here be remarked that until about 1875 when the pine lands of the government were nearly or quite exhausted, it was never considered a mortal sin if a man who owned a tract which he had purchased from the government, extended the boundaries of a section until it took in the good pine timber of a large portion of the adjoining sections. As timber became more valuable, and as it passed from the government to private possession, state legislatures were appealed to for statutes which would protect the absent pine land owner and give him recourse against the man who cut over his land, whether ignorantly or wilfully, to the extent of three times the market value of the timber taken. These laws, however, and as well those of the general government, have always proved of little avail for the protection of the timber, and few suits have ever been adjudicated in the courts which remunerated the government or the individual land owner for the loss occasioned by depredators.

In 1820 the general government established a fort at what subsequently became Saginaw City, and this at the same time became a center or headquarters of the Indian trade as carried on by the American Fur company, General Cass having in the previous year effected a treaty with the chiefs of the Chippewa tribe by which they ceded their lands to the United States. In this year, also, we find record of the building of what was known as the "Mack Mill," at Bloomfield Center, Oakland county, and Ira Preston, who had been a mill owner in Monroe county, New York, located a site and built a mill on the middle branch of the Clinton river twelve miles northwest from Mount Clemens, in the town of Shelby. This was probably the northernmost mill then in operation, and was operated for many years by a son, and later by a grandson of Ira Preston. Of this mill we shall speak further on. In 1821 Burgess and Stimson built a saw mill in Macomb county, adding a grist mill during the following year. In 1822 Oliver Williams of Oakland county built a barn, the timbers of which were whipsawed by a couple of Frenchmen who made a business of whipsawing, and who served a good purpose to the settlers in lieu of a saw mill. During the year, however, a mill was erected at Auburn, which was known as "Smith's mill."

A writer in the Detroit Gazette of August 2, 1822, speaks of a trip up the River Raisin, and mentions "two grist and several saw mills at Monroe and in its immediate vicinity. * * * * The black walnut and whitewood are the largest I ever beheld, the extensive groves of maple will supply any probable population with a sufficiency of sugar." Alfred Ashley of Macomb county in 1821 began a clearing on the north branch and built a mill which was for many years known as Ashley's mill.

In 1824 General Joseph Brown located the first lands in Lenawee county, and proceeded to build a saw mill and was soon after in the same year, followed by Wing, Evans & Brown, whose mill at Tecumseh was running in the fall of 1824, and in 1826 Darius Comstock built a mill on the river Raisin, which was ready to run in November, and which was the third in Lenawee county. This county from this time made rapid progress in its settlement and development, and the state census of 1837 gave it credit for eighteen organized townships, and a population of 14,871, with thirty-two saw mills, fifteen grist mills and seventy-one merchants. The saw mills were located, seven in Tecumseh, six in Logan, (now Adrian), three each in Madison, Cambridge and Medina, and two each in Blissfield, Franklin, Palmyra, Rollin and Hudson. Calvin Bradish built the first mill in the township of Lenawee, afterwards called Madison. Being well to the south of the pine belt the timber sawed at these mills was principally whitewood (which answered to all uses for which pine was desirable) black walnut, cherry and oak, with basswood and maple, the whitewood and basswood being the most desirable for the use of the settlers.

In 1825 Arther Power built a mill at Farmington, Oakland county; William A. Burt, afterward a prominent lumberman of Saginaw, being the millwright.

A mill was built in the winter of 1824-25 at Ann Arbor by John Allen, a Virginian, who settled at Ann Arbor in 1824, and in 1826 John Stewart built a mill with a dam across the Huron river at Ypsilanti. The Indian name of Ann Arbor at that time was Kau-Goosh-Kaw-Nick or "saw mill," and was derived from the music of the old fashioned gate saw, which on the evening air might readily be thought to answer to the sound implied by the name. Musgrove Evans built a mill at Tecumseh, Lenawee county, in 1824.

It was not until 1824 that the president was authorized to appoint commissioners to survey and mark out a road from Detroit to Chicago. In 1827 an appropriation of $20,000 was made by congress for the construction of this road within the boundaries of Michigan. The road was designed to open up the vast prairie tracts west of the lakes, as well as the fertile country composing the southern portion of Michigan, which was now attracting much attention. The country north was but little known and less esteemed, and it was many years later before the flood of immigration developed its wonderful resources in a forest growth which became the wonder of the world. During the same year (1827) the president was authorized to lay out and open two military roads in Michigan, the one from Detroit to Fort Gratiot (Port Huron), the other from Detroit to Saginaw Bay, the former for frontier protection in case of war; the other leading into the heart of an Indian country, and to the fort at Saginaw City, and for the construction of these two roads the munificent appropriation of $1,500 was secured. A further appropriation of $3,500 was made in 1832 for the construction of a road from Detroit through Shiawassee county to the mouth of the Grand River.

Following the construction of mills in a fairly chronological order we learn that Samuel C. Munson, who died at Saginaw in 1888, is credited with the building of a mill on Paint Creek, Oakland county, in 1824, and with erecting the first steam saw mill in Michigan at a point about eight miles north of Pontiac in 1830, (thus antedating the Trowbridge mill at Detroit by two years).

Another claimant for the honor of "first mill in the county" was Jesse Decker, who claimed to have erected the first dam and mill on Paint Creek in 1826, it being at that time the farthest north of any mill in the state, being located two miles from the residence of Mr. Decker, and more than that distance from any other dwelling. A man named Worden in the employ of Mr. Decker, ran the mill for some months, walking from house to mill and mill to house mornings and nights. He had just finished his noon lunch one day when he received a visit from a band of about thirty Indians and squaws who demanded food. Having none to give them, he bethought him of his jug of whisky, (at that time an essential element of backwoods life, and almost as necessary as a saw in the manufacture of lumber, being esteemed a sovereign remedy for the all-prevailing fever and ague of a swampy country,) and thinking to put them in good humor offered it to them. The leader drank and passed the jug to the next, and it took but a few minutes to drain it dry and for the Indians to clamor for more with a persistency worthy of a better cause. The squaws on learning that the jug contained "fire water," and having no doubt previous knowledge of its effects, quickly gathered up all the tomahawks and knives of the party which they could get hold of, and betook themselves to the woods, well knowing the danger of remaining in company with a gang of drunken Indians. All went well until the jug was dry and Worden pro-tested that he could get no more, in which assertion they did not believe he was telling the truth and threatened to kill him if he did not produce more fire water. Their angry faces convinced him that it was no unmeaning threat and that his only safety was in flight, so down from the mill and into the bushes he ran with a dozen half drunken young warriors after him, but thanks to the foresight of the squaws they were unarmed. Worden succeeded in eluding them, being soberer than his pursuers, and after spending an afternoon and night in the woods returned to the mill site only to find that the Indians had set fire to and burned the mill.

A mill was built in 1826 by — Lincoln east of Plymouth Corners in Wayne county, and Job C. Smith built another near Frederick in Macomb county, digging a race from the pond to the mill which under a heavy rain which raised the water to a freshet, undermined the mill, which tipped over into the race. In this same year (1826) a mill was erected at Schwartzburg, Nankin township, Wayne county, on the south bank of the river Rogue. It is related that in 1834 William Osband, who was cutting logs for this mill, while at work on section 3, cut down a large oak from whose hollow butt was taken a dry and partially decayed stump eight inches in diameter and fifteen inches long which had originally been cut off about four feet above the ground, being afterward overgrown and enclosed in the growth of the body of the larger tree from which it was taken. The annual rings (upon a widely prevailing theory) showed the oak to have been 225 years old, and if each ring stood for a year's growth (which is doubtful) the stump must have been cut before the year 1600, at which date there was not an English settlement on the continent, and it was not until forty years later that the great French explorers Joliet and LaSalle were born, and yet the stump bore plain evidence of having been cut with a steel axe, the marks of which were (as asserted) as distinct as when first made; satisfactorily proving that tools from a civilized nation had found their way into the forests of Michigan long before our forefathers landed upon Plymouth Rock, from which event we date the modern history of the continent and are prone to forget that a century and a quarter had elapsed since the genius of Columbus had made known the existence of a new world, during which time no doubt the land was visited by daring adventurers of whom we have no record.

In 1827 Judge Dexter erected a saw mill at Dexter, Washtenaw county, and in 1829 Judge Tiffany built a mill at Fairfield in said county. Horace Jerome, whose descendants were later prominent lumbermen and merchants, of Saginaw City, his son David H. Jerome becoming governor of the state (died 1896), erected a mill in 1827 on Pine River, St. Clair county. Robert Smart had some time before built a mill on the Black River and about this time Judge Bunce erected a mill on Bunce Creek, a tributary of the Black River, and upon a site which has heretofore been mentioned in connection with the early date of 1690. Reference has already been made to the mill of Enos Morass on Black river (1812-1815). During the year 1827 a mill was erected on the Saline River, Washtenaw county, by two brothers, Orrin and Chester Parsons.

In 1828 David Guile built a mill at the outlet of Walled Lake, half a mile east of Novi Corners, in the southwest corner of Oakland county, and the same year Jacob Price built a mill at Utica in Macomb county. Jacob died in 1829 and as we find a mill credited to Asa Price, his brother, as erected in 1828 on the Clinton river, he no doubt succeeded to the work begun by Jacob.

A mill was built on the west side of the state in 1828 by Luther Newton who settled at White Pigeon, St. Joseph county, in that year. This section rapidly gained favor with immigrants in search of good lands. In 1829 we find that Michael Beadle erected a mill at Flowerfield, another in 1833 on Rocky River and in 1837 a mill on Lake Run, about three miles from Three Rivers. Judge Felch put up a mill at Eschol in 1835.

The timber throughout this entire section as far north as the center of Kent and Ionia counties was very heavy, consisting principally of whitewood, basswood, black walnut, cherry, ash, oak, maple, beech and elm, with some white pine of excellent quality near the more northerly limits. Black walnut was quite plentiful but valueless in the then condition of the country, vast quantities being burned in log heaps or made into fence rails, which at the present day would command a value of $150 to $200 per tree.

The same character of timber prevailed in Jackson county in 1830 when Isaiah W. Bennett and William R. Thompson built a mill at Jackson upon the river bank of a quarter section purchased by them from the government, and which later became the site of the city waterworks. This mill they sold in 1832 to Jeremiah Marvin, and during that year George Ketcham built a mill on the east side of the river opposite Marvins. George Ketcham is credited also with building a mill in 1831 on Rice Creek at Marshall, Calhoun county, which cut whitewood principally, as it was better adapted to the wants of the settlers, although hardwoods of the finest quality were abundant.

Judge Albert Miller of Bay City in his interestin and valuable contributions to the pioneer history of the State of Michigan, mentions that on his first visit to Saginaw in 1830 he passed the saw mill of Rufus Stevens at the crossing of the Thread River near Flint in Genesee county, and this he asserts to have been the first mill on waters tributary to the Saginaw Valley, the second being that of Rowland Perry and Harvey Spencer at Grand Blanc on the head waters of the Thread River. The first raft of timber floated on the tributaries of the Saginaw was cut at the Stevens mill and hauled to the Flint River, a distance of two or three miles, where it was rafted. An attempt was made in 1830 by Alden Tupper to build a mill on the Flint below Flushing, but the mill never did any work. Mr. Miller speaks of a steam saw mill at Detroit in 1832 and another at Port Huron the same year, and he knew of no other until the building of one in 1835 at Saginaw by Harvey Williams for his brothers Gardner D., and Ephraim S. Williams. George Oliver ran the Thread

River mill for Mr. Stevens, and this probably accounts for the statement made by Hon. E. H. Thompson in his history of Flint that "George Oliver built a mill on Thread River about one and a quarter miles from Saginaw street in 1830, and Rufus W. Stevens another in 1833 at some distance below Oliver's mill to which a few years later he added a grist mill and it has since been known as the 'Thread mills.'"

The early settlers of Michigan of about this period (1830) were aware of the existence of vast forests of pine, but did not fully comprehend their extent up to as late as 1870, yet knew enough to render them skeptical as to the possibility of their exhaustion in their own, or the lifetime of their children. Maine was supposed to be a country of illimitable, but accessible forests, as was also the country comprising the valley of the Connecticut River, and these sections were thought to lay too near the large cities of the east ever to suffer from competition with timber which must be transported a thousand miles from the interior. The supply of timber in Maine was supposed to be sufficient with the most wasteful extravagance, to answer all the demands of a century, hence the idea that the timber of Michigan could ever be in more than local demand. was preposterous. How correct their prognostications; how short a time it has taken to tell, for scarce half a century has passed and lo, the vast pine forests of Michigan and Wisconsin as well as those of Maine and the Connecticut Valley have practically disappeared, while even those of Canada contain present resources no greater than would (unassisted) provide less than two years' supply to the consumptive demand of the United States.

In 1831 Caleb Eldred erected a water mill at Comstock, Kalamazoo county, Andrew McCarty, a mill wright, the same year erecting a frame for the mill of Moore & Jackson in the same neighborhood.

Caleb Eldred was from Otsego county, New York, and Moore & Jackson were Vermonters, the mill of the former was started about September 1, 1831, on Pine Creek, the mill of Moore & Jackson getting to work the following year; their cut was whitewood and basswood principally, and proved a great blessing to the settlers, who had been dependent upon "Shaacks" and log houses with hewed floors, bark roofs, and rived doors and window frames with little or no glass for the sash, sliding shutters or cotton cloth being more commonly used. Titus Bronson built a mill at Bronson (now Kalamazoo) in 1832; George Rigby a double mill at Augusta in 1836-7; Isaac W. Willard, a saw and grist mill at Paw Paw in 1840. The timber of Kalamazoo county consisted of whitewood, black walnut, oak, elm, basswood, maple and cherry, hard maple being abundant.

Henry Howard

CHAPTER V.

SCATTERING PIONEER MILLS OF MICHIGAN 1830 TO 1840—EARLY MANUFACTURE OF LUMBER.

IN 1832 E. J. Sibley built a mill on the St. Joseph river in Hinsdale county, about two miles south of Jonesville, and three years later James Olds and others built another about a mile above, on the east branch of the same stream. The benefit of these mills to the early settler was incalculable.

In this year also William Farnsworth and Charles Brush (of whom we shall speak later) who had resided at what is now Menominee on Green Bay, since 1822, erected a saw mill on the Wisconsin side of the Menominee river; no other mill being noted at this place until 1841. (See chapter on Menominee, Michigan.)

Alfred L. Driggs of Constantine, Branch County, built a mill on Swan Creek in 1832 and supplied the local demand of the settlers in Branch and St. Joseph counties, and finding that he had a surplus, he cleared the creek for a distance of five miles and rafting in cribs of about 1500 feet each he ran 100,000 feet down to a banking ground, whence by team he carted it to Colon lake and the St. Joseph river, where he formed a larger raft and ran it down the river to its mouth at St. Joseph. Finding little or no sale for it there, and learning that there was a new town starting on the west shore of the lake, called Chicago, and finding a schooner which had a hold full of flour for that village, he bargained for a deck load of lumber, and chartered the craft to return for the balance of the lumber, agreeing to pay $200 for the charter. Arriving off the town of Chicago and unable to enter the river, the vessel came to an anchor a half mile from shore, and her cargo was transferred by a lighter to the river and shoved upon its bank. Driggs soon found that he had come to a poor market for the sale of 20,000 feet of clear whitewood, but at last sold it to a man named Williams, who kept a seven by nine grocery, and who proved to be the only man in the place able to pay for so much lumber. He remained in the young town for a couple of days intending to return home and not again visit St. Joe where the balance of his lumber was, giving up the idea of freighting it to so poor a market. Late in the afternoon Williams informed him that the captain of the vessel had taken out a warrant for his arrest on a charge of breach of contract, as he had learned that Driggs did not intend to keep his charter agreement. Driggs at once paid his bill at the hotel where he had been stopping, and struck out for the beach, travelling fifteen miles before he stopped, so as to be well out of the sheriff's jurisdiction. In 1834 he repeated his experiment of shipping, this time with more satisfactory results, and in 1836 sold out his mill property. This was no doubt the first cargo of lumber brought to Chicago, and was whitewood; the first cargo of pine did not reach the young city until April 1835, when Nathaniel J. Brown took in a cargo of pine which was cut on Buck Creek, near Grandville on the Grand River.

Evidencing how little was known of the pine regions of the State in the early thirties (and for many years after) we have the testimony of Stephen Cornell, who emigrated from Poughkeepsie, N. Y., and settled in 1833 at Unadilla in Livingston county, Michigan, where he cleared up an excellent farm and had lived upon it for two years before he heard of the great pine forests less than fifty miles north of his home, and was not aware that there was a pine tree in the State until so informed by a surveyor who claimed his hospitality for a night, and who had penetrated the northern forest for a few miles, in the pursuit of his profession.

Lapeer county was first penetrated in 1832 by Col. J. R. White, who was struck with astonishment at the quantity and excellent quality of the pine timber, and in 1833 erected a mill at Lapeer and wisely added gristing facilities; he was soon after followed in his enterprise by Abram McMaster, who built a mill at a date not ascertained. No section of the State, or of the United States has ever produced superior timber to that of Lapeer county, and lumber manufacture was for many years the leading industry of the county. In this year also the Rev. Calvin Swan, a Baptist clergyman, located at Brooklyn, Jackson county, where he built a saw mill, bringing the necessary iron work from the east, his manufacture being confined to the oak, whitewood, black walnut, basswood, etc., of this region.

Rev. —— McCoy of Niles established a Baptist mission at Grand Rapids in Kent county, in 1826 and was joined in 1827 by Rev. Leonard Slater, who took charge of the work. One of the adjuncts of this mission was a saw mill, located on a small creek, which was a great benefit both in the mission work and to the young settlement. In 1833 Luther Lincoln built a saw mill on the East branch of the Grand River, near the later site of Sweet's Hotel, (Grand Rapids), being the first attempt to dam the river and utilize its vast water power. Mr. Lincoln was a man ahead of his times, as he built his mill on a large scale, intending to put in a live gang of sixty saws, but a search at Philadelphia, then the headquarters for saws and mill supplies in this country, failed to disclose half that number in the market, and these not suitable for gangs. Mr. Lincoln contented himself with four saws instead of sixty; and then had a mill which was a great innovation and improvement upon anything then to be found in the west, it was, however, several years before the demand for lumber required the mill to run to its full capacity. The Grand River valley was by this time receiving a large immigration, although by far a majority of home seekers passed on to the prairies of Illinois, and no small number were turned toward Wisconsin, and the timber interests must bide their time until in the rapid settlement of the country and improved means of communication and travel, their extent and value should be appreciated by those who possessed the capital needful for its development, and the requisite enterprise for its manufacture and sale in a general market. The Indian titles to the lands north of Grand River were not obtained until 1836 and the financial reverses of 1837 checked all enterprise which looked to the development of a new country, and threw a pall over the hopes and aspirations of the pioneer settlers. At least five years elapsed before the reaction set in and before the productions and capabilities of the State in its agricultural or forest resources began to be fairly appreciated. For many years these valuable forests were considered only in the light of an expensive incumbrance upon the agricultural resources of the State, and fortunes in walnut, cherry and other valuable timber growths, were immolated upon by the log heap of the hard working settler, struggling to clear up enough land to make a living for his family. With many immigrants the forests were an almost insurmountable obstacle, so long as the fertile prairies of Illinois were obtainable, and this fact later proved of the greatest advantage, the rapid settlement of the prairie lands proving to be the necessary adjunct for bringing the forest resources of Michigan into use and for developing their value.

All of the larger rivers of the State take their rise east of the meridian line, and after traversing the central and western portions of the state, empty into Lake Michigan. To the east the Tittabawasse emptying into the Saginaw, courses north almost to a confluence with the Muskegon, while the Cass, Flint and Shiawasse, which with the Tittabawasse, join to form the Saginaw, penetrate the pine belt east and south. The Au Sable, Thunder Bay and Cheboygan Rivers empty into Lake Huron and these are all streams which have borne their millions of saw logs to the mills at the various points of manufacture. On the west side of the State, the St. Joseph, Grand River, Muskegon, White River, Marquette and Manistee Rivers penetrated vast forests of pine, which could, before the advent of railroads, have been utilized by no other means than those afforded by the floatage proximity of these streams and their many branches. Of all streams of the State, only the Saginaw, the Grand and the St. Joseph Rivers present facilities for steamboat navigation for any distance from their mouths, but all were capacious enough to float the needful supplies of timber from the forest to the mill, without endangering or interfering with any other industry which might require the use of the stream. But for this excellent provision of nature which seems to be inherent to almost every rich timber section of the continent, the present abnormal development of the forest industry would have been impossible. It was many years before the railroad was found a useful adjunct, if not necessity, in the distribution of forest products, and many more before their utilization as log carriers.

It was not until the opening of the Illinois & Michigan Canal in 1848 and the construction a few years later of the various railroads penetrating the prairie country west and southwest, that the manufacture of lumber in Michigan assumed vast proportions, and opened the eyes of the world to the value of her forests. With an increased demand, the value of the rivers as great natural highways for floating logs to a point where the lake marine could reach and carry the manufactured product to a market, was more fully appreciated, and mills began to multiply at all available points; harbors were improved by the general government and the wilderness region of the west became a hive of thrift and industry. As Chicago, Milwaukee, Racine and other lake cities became the grand *entrepot* to the vast and fertile plains of the west, so did the demand for lumber increase; and it is perhaps safe to say, that from 1850 to 1890 not less than 5,000,000,000 feet of logs floated down the Grand River alone to the mills at Grand Rapids and Grand Haven. At the last named date practically the last pine log was floated down the river while the many furniture factories which have made the name of Grand Rapids to be known all over the civilized world, are engaged still in manufacturing the finest hardwoods of the state into elegant furniture which finds its way to every corner of the earth, gracing the palaces of princes, the mansion of the wealthy merchant, and as well the cottage of the laborer. An important factor in this development was in the State grant of 1,000,000 acres of pine lands in aid of the building of the Grand Rapids & Indiana railroad, and the grants to the Flint & Pere Marquette and other roads in the State.

In 1832 Abram Aldrich, a noble and sturdy Quaker with his two sons-in-law, Benjamin H. Smith and Martin Barnhart, settled on West Cocosh prairie in Girard township, Branch county, and erected a saw mill amid the excellent hardwood forests of that region.

In 1833-4 a mill was built on Black River, six miles north of Port Huron, which was for many years known as Burch's mill, and in the same year Ralph Updike built a mill in Jackson county; and Nahum H. Wilson erected one in Genesee county, which on his death in 1887 was claimed by his biographer to have been the first mill in the county; (this was afterwards known as the Stage & Wright mill); that this was an error is shown in the account elsewhere given in these pages of the Stevens mill (1830).

Ira Potter from Rochester, New York, erected mills on the headwaters of Black River in Lapeer county, in 1834; he, in 1836, removed to Flint and bought the Kearsley mill in Genesee township. The first saw mill in Berrien county was built in the Spring of 1835 on section twelve, by Capt. Wesel Whittaker, who had been warned by Acting Gov. Stevens to be and appear at Niles upon the same day appointed for the raising of the mill, to raise a company for service in the "Toledo war," in defense of the ten mile strip which was claimed by both Michigan and Ohio, and the contention over which caused great excitement, and the marching of armies on to the disputed territory. Capt. Whittaker sent back word that he had business of his own on hand for that day, and should arm and equip every able bodied man in the township with handspikes and pike poles for the raising of a saw mill; which he did, and having completed the task, patriotically reported at Niles for duty.

So late as 1835, Bellevue, Eaton county, was looked upon as "the jumping off place," with the vast unknown wilderness to the north and west. In that year Rev. John D. Pierce built a saw mill which for many years supplied the surrounding country with building material, and having a surplus on hand, in the following year, two settlers, Messrs. Hoyt and Kirkman, who were firm believers in the possibility of steam navigation on the Kalamazoo River down to Battle Creek, and the possibility of rafting to that point, attempted to demonstrate their belief by making up a raft of lumber to float down from Bellevue to Battle Creek, and of the possibility of rafting to that point, attempted to demonstrate their belief by making up a raft of lumber to float down from Bellevue to Battle Creek. On the second day out Mr. Kirkman fell overboard into water waist deep, and to crown his misfortune the illy constructed raft began to break up, compelling an abandonment of the enterprise and the feasibility of the upper river navigation has never yet been demonstrated. No other mill is recorded at Bellevue until 1854, at which time the Pierce mill was still in operation. In 1835, however, a steam saw and grist mill was erected at Kalamazoo by the Messrs. Gridley. The timber of Eaton county embraced all varieties except pine; whitewood and black walnut being especially plentiful in the neighborhood of Bellevue. Vast quantities of the hardwood of this section were burned for the ashes, the manufacture of pot and pearl ashes being carried on quite extensively in the clearing up of farms, even the ashes of the spacious fire places being looked upon as veritable gold mines on a small scale.

A settlement known as Milton in Calhoun county welcomed Judge Sands McCauley's mill in 1835, although in the previous year the settlers had floated lumber for floors, doors, seats, etc., down the creek from Bellevue for the completion of a log school house. It is related that in the cholera epidemic of 1832 at Athens, it was necessary to tear up floors of lumber which had been carted 25 miles, to make coffins for the dead.

In 1835 John Conroy erected a mill at the mouth of the outlet of what is now known as Hart's lake. The first law suit in Eaton county was in 1836 over a saw mill, the litigants being Peter Chisholm vs. George Ketcham, the claim being for material furnished in building the mill.

Jesse Crowell settled at Albion, Calhoun county, in 1837, and built a mill, and the same year Matthias Hutchinson built one at Bedford village. The village of Marshall was for many years supplied with lumber from a mill on a small stream on section seven, owned by Sidney S. Olcott; its product being almost wholly of whitewood. J. R. Partillo for many years operated a mill in the town of Lee, cutting whitewood, black walnut, oak, beech, maple, cherry and basswood.

In 1836 a mill was erected by Harris C. Goodrich and Charles D. Smith of Marshall on a creek in the south part of Eaton county, and in digging the race many Indian relics were discovered, which the Indians of the neighborhood asserted to be the remains of a tribe governed by a big Indian Te-Quon, or Konqua-sha, and the name Tekonsha was given to the settlement, which has since become a village of importance. In 1835 a further advance toward the pine forest was made in the building of a mill at Waterford in Oakland county, of which we have no particulars, and the same year Amasa Gillette and B. F. Burnett built the first mill at Sharon, Washtenaw county.

In this year (1835), a Boston company in which Samuel Hubbard, E. Monroe, and P. Cutler of Boston, with C. C. Trowbridge of Detroit were interested, secured a location and built a dam across the Kalamazoo River at Allegan for the manufacture of pine and other lumber. The pine belt which in its westerly course lay practically north of the center of Shiawassee, Clinton, Ionia and Kent counties, took an almost direct southerly course from the line between Kent and Ottawa counties, bending to the southwest as it reached the north line of Van Buren county, striking the lake about ten miles south of South Haven. The company's location was upon the border of a pine forest, with a good water power, and a floatable stream to raft their product to a shipping point at Saugatuck, on Lake Michigan. They obtained the necessary sawed lumber from the Eldred mill (1831) at Comstock (Kalamazoo county), floating it down the Kalamazoo River, and with it erected their buildings and mill, which was put in operation the same year (1835). In 1837 the Schoolcraft mill was built, and in 1838 a mill was erected by Ira Chaffee and C. F. Nichols. It is asserted that Ira Chaffee was the first man in the state to discard the sash saw for the mulay, when it was at a later date introduced, and still later, on the introduction of the rotary, about 1855, he is claimed to have been the first to adopt the new innovation, which was destined to revolutionize the manufacture of lumber. These mills had a surplus of timber to spare soon after getting in operation, and it is claimed by Joseph Fisk of Allegan that in 1836 he took finished lumber from this mill to Chicago, which he sold at $50 per thousand, as it came from the log, (mill run, culls in), and that three years later in 1839 he sold equally good stock at $5 per thousand culls out. Mr. Fisk also claims to have built the first dock in Chicago, twenty feet wide on the river at Wells street, but the historian in his researches has found several other claimants for that honor, and is unable to substantiate Mr. Fisk's claim, and in view of the undisputable claim of Nathaniel J. Brown, who sold a cargo of pine at Chicago in April 1835 at $28 per thousand, Mr. Fisk's claim is open to question. The mills above mentioned were favored with an excellent quality of pine for many years, combined with whitewood, basswood, oak, ash and beech, while soft maple, elm and black walnut were plentiful on the bottom lands of the river and creeks.

Saugatuck (the Indian designation for "mouth of the river") was for many years (1837 to 1875) a very prominent shipping point for lumber. O. R. Johnson & Co., consisting of O. R. Johnson, and (1857) W. D. Houghteling and Francis B. Stockbridge (later, for many years United States Senator from

Michigan) were heavy operators while the timber lasted. This firm in 1868 became Spalding, Houghteling & Johnson by the admission of Jesse Spalding and H. H. Porter of Chicago, and the combining of the business of Spalding & Porter with extensive mills at Marinette, Wis., and wholesale yards at Chicago. The original founders of the business at Saugatuck were O'Shea, Wilder & Son under the designation of the New York & Michigan Lumber Co. Messrs. Houghteling, Stockbridge & Johnson in 1875 removed to the Black River near Mackinaw, where they erected large mills and carried on an extensive manufacture of lumber.

Notwithstanding Gardner Williams and Judge Albert Miller and their conferees are credited with great enterprise in building mills so far out of the world as were their enterprises at Saginaw and Portsmouth, they were outranked in point of precedence by Job Olmstead and Douglas Thompson (previously mentioned), who built a water mill in 1835 at Pine River, now the north boundary of Bay county. What their object was is problematical, as there was not even a handful of settlers to smile upon their enterprise, and the character of the surrounding country was not sufficiently inviting to draw a reputable number of inhabitants about them, for many succeeding years. Still, they built a mill, and made lumber, as is attested by the decayed sawdust, and the evidence of a dam having at one time been thrown across the river, the remains of which were seen by the historian as late as 1864, while lumbering on that stream, but even the oldest inhabitant could give no particulars of the enterprise, decayed slabs and sawdust with some slight earthwork, being the silent evidences of a long extinct business enterprise.

In this year also John and Robert Davison built a mill on an inlet of Battise Lake in Jackson county, and in the same year a mill was erected by the brothers Goodrich, at Atlas, Genesee county.

Erastus Ingersoll built a mill at Delta in Eaton county, which sawed its first board on the last day of December, 1836, and in the same year Henry and Augustus Penoyer built a mill at Penoyer Creek, near Newaygo, in Newaygo county, and Daniel Ball & Co. built at Owosso, Shiawassee county bringing the machinery from Detroit by vessel to Saginaw, and thence by scow up the Shiawassee river; this year also John and Brodhead Dubois, who had located at Jefferson, on the River Raisin in 1833, and had been engaged in the erection of a saw mill, put it in operation.

The first saw mill in Lenawee county was built on Wolf Creek in this year by parties whose names we cannot learn, but who had an abiding faith that the creek was navigable to Lake Erie, in which on closer investigation they found themselves mistaken. George Rigby in this year built a two sash mill at Augusta in Kalamazoo county, for the Augusta company, who later removed one saw to make room for a run of stone for gristing. Elijah Woodworth and D. F. Dwight in the same year (1836) erected the first mill in Ingraham county at a point about fifteen miles north of Jacksonville. The nearest mill at that time was at Ingersoll, Clinton county, thirty-five miles to the north. To the raising of the frame, came settlers from ten to twenty miles away, all rejoicing at an appliance of civilization which was to lend added comfort to their residence in the forest, and their endeavor to hew them out farms and homes.

Tuscola county in 1836 welcomed the labors of E. W. Perry and a man named Hurd, who commenced building a mill on Perry's Creek, a tributary of Cass River, and who found it an easy job to accumulate a surplus stock, after supplying all the demands of the neighborhood. The stock was of superior grade, in fact, for many years the name of "Cass" stock carried with it the reputation of the best timber which can be found in a white pine forest. Large in size, the timber as a rule grew on land which bore oak, maple and beech in abundance, and the pine was of that excellent variety known as cork pine. Messrs. Perry and Hurd essayed to find a market for their surplus by rafting it down the river to the young settlement at Saginaw, but they found the streams obstructed by drifts of timber which were jammed in various places to the extent of half a mile or more. Undaunted by what must have seemed an almost insurmountable obstacle, Mr. Perry undertook, and did clear the stream of the accumulations of centuries, opening up a navigable thoroughfare over which hundreds of millions of feet of saw logs, and sawed lumber subsequently found floatage to the mills and the markets of the Saginaw valley. Only those who have had experience of a similar character can appreciate the debt of gratitude due from the citizens of Tuscola county to their benefactor, E. W. Perry, for the benefits of his work were not confined to the lumbermen, but were participated in by the entire community, and contributed in no small degree to the settlement and prosperity of one of the richest and most thriving counties of Northern Michigan.

In 1836 Laban Merrick erected a saw mill at Canandagua in Lenawee county and commenced sawing in April of that year; a second mill was erected the following year of whose history we find no particulars. In 1840 Rev. Laurin Hotchkiss, a Baptist clergyman erected a mill at Tiffin in the same county, these being days in which religious instruction went hand in hand with farming and other business enterprises.

In April 1836 Jabin S. Higgins erected the first saw mill on Pine Creek in Allegan county, and with his son, Willard Higgins, hauled lumber to Battle Creek, a distance of forty miles, with which the first frame houses in that town were built. During the same year Col. Isaac Barnes with his two sons, George and Lucius, built the first mill on Rabbit river, Aleghan county, giving their settlement the name of Lumbertown, and in the same year Ralph R. Mann was employed by John Allen to build a mill at a place which they named Richmond (Macomb county). In this year also (1836) a New York company erected a mill in the township of Clyde (Alleghan county), and in 1837 Levi Loomis built a mill on Swan Creek, (Saginaw Co.), for David B. Stout. In 1839 a mill of six saws was erected at Singapore (Saugatuck) as mentioned elsewhere in this volume.

Eaton county also came in for her share of mills in this year (1836), Amos Spicer building a mill at

Spicerville, finding a ready market at $10 per thousand feet for all the lumber he could manufacture, and during the same year Fifield & Turney built a mill at the mouth of Big Meadows brook.

The year 1837 saw the erection of a large number of mills, notwithstanding the financial revulsion which plunged the country into the deepest distress, but which also had the effect of stimulating immigration to the new west of Michigan, Illinois and Wisconsin. In this and following years there were two or three mills erected in Livingston county by Evert Woodruff, and — Campbell and Orson Quackenbush (1840) in the eastern and northern part of the county.

Incomplete census returns published in 1837 by a Detroit publishing house, from compilations made by State authority, asserted the manufacturing interests of the State of Michigan to include 433 saw mills; 114 grist mills; 23 cording machines; 12 cloth dressing machines, and 16 distilleries. In this year a mill was built at Waucousta, Clinton county, which began operations in the fall of that year.

Montcalm county possessed extensive pineries, as is mentioned in connection with the mills at Stanton, Cedar Lake, Sheridan, Greenville, and elsewhere within the county. J. J. Merritt built a mill at Greenville, the first steam mill at that point, in 1861; he died in February 1885. Seth W. Crosby built a mill in 1868 and was associated with his sons in the manufacture of lumber for several years. He died in March, 1885. More particular reference to this county will be found in the chapters devoted to the railroads of the State, penetrated as the county is, by the D. L. & N. and other lines of road.

Until 1850 Gratiot county was an unbroken wilderness, but about that time settlers were attracted to its fertile lands, and in the spring of 1854 R. Ely settled at Alma on the banks of Pine river, where he erected a mill and gave the name of Ely's Mills to the settlement, which later became Alma. In 1855 a mill was built at what is now St. Louis, to the raising of which every able-bodied man and woman for a circuit of many miles were invited, but when completed, the dam which provided the water power, proving an obstruction to navigation, access to the surrounding country being largely by canoe and small boats, the people gathered and cut it away, the mill being less of a necessity than the highway of the stream. The building of railroads through the county brought this section into considerable prominence, which is more fully set forth in the chapters devoted to the Saginaw Valley & St. Louis and Detroit, Lansing & Northern railroads. Alma has in recent years become one of the most noted among the sanitarium resorts of the country, through the efforts of Mr. A. W. Wright, one of the most prominent lumbermen of the Saginaw Valley, a sketch of whose life appears elsewhere in these pages.

CHAPTER VI.

EARLY MILLS OF ST. CLAIR RIVER—LUMBERING ON BLACK RIVER.

IN 1831 a mill was constructed at St. Clair to take its power from the rapid current of the St. Clair river, but not proving a success, was soon after changed to a steam mill by Reuben and Stephen Moore. The first steam mill of the county was built at Port Huron in 1832 by Dr. Justin Rice under the supervision of Capt. John Clark, for Detroit parties, and was for many years known as the "Black River Steam Mill Co." mill. Dr. Rice was the first so far as is known to utilize saw dust under the boilers for fuel. For many years the mill industry at Port Huron was of great importance and several saw mills were erected, but by or about 1865 to 1870 the timber tributary to its streams was gone and the mill industry has since about that time fallen almost to extinction, the few remaining mills obtaining their log stock by raft from Saginaw Bay and Canada.

Willard Parker, Brooks & St. Clair and Wesley Truesdale were among the manufacturers of an early day at St. Clair, while —— Comstock operated on the Black River above Port Huron. In 1837 M. Folger built a mill with two mulay saws at Marine City, St. Clair county, the mill having capacity for sawing 10,000 feet per day and in 1842 Ward (E. B.) and Rust, and in 1850 Dr. L. B. Parker erected mills at the same place, other mills being erected at a later date, but Marine City never took a prominent position as a lumber manufacturing point. In this year a mill was built by —— Allen at White Rock, Sanilac county. The first export of lumber from Michigan to an eastern market was made by Ralph Waddams, about 1840, and was a blind venture, and an experiment, which was not soon repeated, as freight and charges on the voyage to Albany ate up all the proceeds of the sale. In the absence of details we may assume that freightage was supplemented by storage, ratage and commissions, even if the item of "stealage" did not enter into the details as it undoubtedly did in many of the shipments of succeeding years.

Personal recollections and authentic statements which come direct from those who were associated with the pioneers of a new country are always of deep interest as supplying the most valuable and reliable data concerning the events of earlier days, and in this connection we present the following from Mr. E. V. Preston, a grandson of Ira Preston, one of the earlier pioneers of the St. Clair region, and now connected with the Isabella Lumber Company of Kentwood, Louisiana.

Ira Preston was born at Wallingford, Connecticut, March 9, 1785. He died at Romeo, Michigan, August 20th, 1872. At an early day he made his way to the men west, settling in Monroe county, New York, when he operated a saw mill. In 1820 he visited the far west, having lost his mill property through a fraudulent title, and in 1823 located a mill site in Michigan. He came by way of Detroit and Mt. Clemens and following up the middle branch of the Clinton river, he located at a point twelve miles northwest from Mt. Clemens, in what became the town of Shelby, in Macomb county, about thirty miles north of Detroit. After deciding upon his location, he returned to New York State and obtained the necessary machinery and iron work for a saw mill, and returning brought with him Daniel Kniffen, a millwright, together with several young men to build and run the mill. Kniffen afterward married Ira's oldest daughter and settled on a farm two miles below, on the "Branch," where he died about 1870. The party came by vessel from Buffalo to Detroit, and brought oxen and wheels for carts along with them, camping in the hardwoods near Detroit, until they could build carts for the transportation of their material to the new home. Loading the carts with his household goods and mill material, Ira with his wife and seven children led the party through the unbroken wilderness, and after five or six days of journeying, reached his destination and proceeded to carve out a home, and to build a saw mill.

The first mill was a very crude affair, with a wooden water wheel to drive an upright (gate) saw, using a separate wheel to gig back the carriage. The feed was of the ratchet variety, feeding forward when the saw rose in the cut. The carriage ran on wooden ribbons for a track; the gig wheel and its shaft were of wood, as were the cogs on the top of the water wheel, as well as those of the gig wheel and shaft. The head blocks were ponderous oak blocks fitted with the old-fashioned "bail" dogs, a crowbar being used to set up the logs. As the saw was not allowed to cut to the end of the log, a "stubshot" was left at the end of each cut, a trip being provided to stop the carriage four inches from the end of the log to avoid sawing into the iron bail dog, which was about two feet long, with a couple of heavy teeth welded on its center to drive into the end of the log. The lumber being split off, the stub shot was removed and the board made smooth by an adze. (Note by editor: It was for reason of this stub shot, that the custom arose which universally prevailed up to the introduction of the rotary saw, of cutting all logs three inches longer than the desired length.)

The mill capacity from daylight to dark was about two thousand feet of boards. The dam, which was about 500 feet in length, was at first built entirely of flatted timber, with no waste-

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> gate, the surplus water running over the top. About this time a good many settlers were attracted to this region, and I have heard my grandfather say that he could hardly furnish lumber fast enough to satisfy the demand, while for the first five years he saw very little money. As he was clearing up a large farm, he took labor, cattle, sheep, wheat, corn or almost anything else in exchange for his lumber; the grain was sent to Frederick or Pontiac to be ground at mills which had been built at these points, and what flour he did not require for his own use or sale, was sent to Detroit to be disposed of. In sending grain to the mills about a week was consumed on the trip. The old mill continued to run until about 1850, when a mulay saw took the place of the sash, and the wooden water wheel was exchanged for two iron "heads," or reactionary wheels, which later were replaced by an upright turbine, geared and belted to the saw shaft. This was about 1860, and about the close of the war a larger turbine was put in and a circular saw hitched on, and this ran until 1873, when as the timber was exhausted for miles about, the mill was abandoned. Ira Preston ran the mill until sometime in the "40s," when it was taken by my father, who ran it until 1873; I ran it for my father during its last year. The capacity of the mulay was about three to four thousand feet per day, that of the circular about fifteen thousand feet. White pine was cut for several years, until the supply gave out, and then black walnut, oak, ash, poplar and whitewood provided the stock.
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> There were saw mills in operation at Frederick, Utica, and Rochester, when Ira Preston came to Michigan. The mill at Frederick was known as "Tromblay's," that at Rochester as the "Hersey mill." These mills were probably built about 1820, and sawed oak and basswood principally, with cottonwood, ash, poplar and other hardwood growths.

In 1832, Amos G. Throop (who for many years was a leading lumberman at Chicago, and who later went to California, where he established the Throop University at Passadena, devoting his ample fortune to that purpose, dying at Passadena in March 1895), visited the St. Clair region and became a prominent operator in the forests of Black river, where in 1835 he was joined by his brother John E. Throop, now of Los Angeles, California, who says:

> My brother Amos, for the first two or three years of his life in Michigan, worked by the month for mill owners at Black river, on the St. Clair, and by diligence and rigid economy saved a little money, which he invested in pine lands, from which he lumbered in later years. In 1834-5 he with another man took several jobs of cutting and banking logs and timber for the mill men and about this time I made my advent there and joined him in contracting. We were that year offered a large contract by a ship builder to get him spars, booms, bowsprits, etc., which we accepted and we banked some eighty-five or ninety sticks, some of which were huge spars, 80 to 100 feet in length, straight as an arrow; these we selected from an 80 acre tract near the river, and it was no small job clearing roads, and hauling the monsters, some of which required twenty-five yoke of cattle to move them. We got what was then considered a fair price, which was about one-fourth of what they would have brought a few years later. We rolled them into the river and floated them to the River St. Clair for rafting below.
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> Later we took a big bill of timber for a large Catholic church at Windsor, opposite Detroit, which was a "terror." Some of the pieces (I think twenty-eight of them) were fifty-two feet long 10x22 inches. You can imagine what a time we had scoring, hewing, and back breaking, on trees thirty inches or more at the top, all the work being done with our axes. On stormy days and at spare times we made shaved shingles, always keeping bolts on hand at rough sheds under which we could work. We supplied logs for mills at Detroit and on the St. Clair, those for down the river being rafted with boom poles around a strongly built crib of timber, eight or ten feet deep, on which were houses for the men, who were supplied with anchors and chains, tow lines and boats. The cribs were floated down and anchored or tied up near Lake St. Clair, and towed across the lake on still nights by small steamers which took them to the mill booms at Detroit. Now and then a stormy wind would rise in the night and the rafts would part, and many, and in some cases all of the logs would be lost, and the men be for hours in peril. When I first reached Port Huron there was but one mill near the mouth of Black River, known as the Black River Steam Mill, (this was built before 1834.) It ran two upright saws and cut about ten thousand feet in twelve hours. It was owned by a Detroit company. About eight miles up Black River, Ralph Wadhams (1827) had a water mill which ran about half the year, operating two upright sash saws, set in ponderous frames, held by huge fender posts on either side. The sash and gig works must have weighed 1,500 pounds or more. The cut of this mill was some two and a half to three thousand feet to each saw, in the usual twelve hour run. Some fifteen miles from Port Huron A. J. Beard (before 1833) had two saw mills run by water power, and of about the same capacity as the Wadhams mill. Logs were floated to the slides above each dam. The appliances for handling logs and holding them on the carriage while being sawed, were rude and bungling affairs, compared with those of a later day. The huge bail dogs, fastened to heavy oak head and tail blocks, were knocked into the end of the log, and out again by a large crow bar which was used to set the log to the desired thickness of lumber, there being no guide but the eye, and often but one man to set both ends of the log. Half a mile up Mill Creek from Beard's mill was Zephaniah W. Bunce's mill, (Mr. Bunce settled at a point three miles below Port Huron in 1817, and built a

water mill there, afterward building the mill now mentioned by Mr. Throop, and which he operated until about 1850), running one sash saw, which cut but little lumber, which was rafted and floated down the river in times of flood, as was the lumber of the other mills, and reached the mouth of the river bruised, split, and loaded with sand and muck, and was then sold at ruinous prices after being washed and hauled upon a dock. Half a mile above Bunce was a small mill built by —— Westbrook, whose lumber shared the same fate as that of the others, except a little local trade to settlers. Some years later there were mills at Vickery, six miles below Port Huron, run by steam, using upright and circular saws, and doing a fair business. There was also two steam saw mills at St. Clair village (then the county seat). These were well handled and cut large amounts for those days. One of these was owned by —— Truesdell, and the others by distant owners. Some two miles below, near Clarks Point, was a small steam mill, and at what was then "Newport," now Marine City, there were two good mills, the names of their owners I do not remember. At Algonac, near the St. Clair flats, was a good mill doing mainly custom work. All of these mills had good docks at which any vessel then upon the lakes could load. Some of the product of these mills went east, and some to Chicago and Milwaukee. At St. Clair and below, logs were floated out of Pine river, and at Port Huron from the Black. In the "50's" mills were built at Port Huron by Wells, Davis, Fish, and Hibbard & Chase. Several of these kept up with the improvements in machinery and being well handled were profitable investments. There were several heavy pine land owners at Port Huron, some of whom bought early and to great advantage. I remember the Sanborns (two) Switzer, Harrington & Burch. There was later a steam mill built on Lake Huron some six miles above St. Clair rapids, which cut considerable lumber, but loading by raft or scow to vessels at anchor off shore, was no joke, neither was the getting of logs into the mill from the sand banks around it. Other mills were soon after built at Lexington and other points as far as Saginaw River, but of these I know but little. St. Clair county was famous for its extensive groves of the best "Pumpkin" pine, and Black River and Mill Creek carried fortunes to a market in logs, timber, lumber, shingles, etc. The white oak in many parts of the county was the finest known; of this a goodly portion was ruthlessly slaughtered, often less than half a tree was used for pipe staves and "butts," the balance being left to rot. It was the same with the early shingle making, only the best of a straight grained tree being used for shingle bolts, and the rest left for the worms and to rot on the ground. The greatest curse to the country for many years was the extensive entries of the choicest pine lands, by a large company from Maine, who brought their surveyors and traversed the whole region, selecting the very choicest (cream), of the timber, entering vast quantities with soldiers' warrants, fighting taxes and opposing improvements, thus throwing heavy burdens upon the poor settlers, and preventing advancement. They made mints of money out of their sales in later years. Another outrage was perpetrated by men who bought school lands, making perhaps a quarter payment, and stripping the lands during the first year, and abandoning them, refusing to make further payment. The school lands of the whole State were in this manner robbed of millions of dollars, before stringent laws, and careful supervision were established.

I have given you an imperfect sketch of matters in the early days as they now recur to me, after the lapse of nearly a half century.

Andrea's history of St. Clair county mentions a mill built by D. B. Harrington one-half mile below Port Huron; also that a mill was built in 1834 by John Howard three miles above Port Huron. The Black River Steam Mill was originally built by F. P. Browning, and ran three upright saws, and one circular, (siding mill). This mill was burned twice and rebuilt. The Andreas history reports the number of mills in St. Clair county (which included Sanilac county) in 1847, at 22 water mills, and 12 steam mills. Black River before 1840 was navigable as far as Wadham's mill, the steamer General Gratiot running between Detroit and Port Huron, extending her trips to the saw mill, six miles from the mouth of the river.

While the compilation of statistics of the annual timber cut was not undertaken until 1868-9 when Lewis & Headley of Saginaw, with wise appreciation of their value, began the publication of annual statistics of the production of the Saginaw Valley, with incidental reference to other localities, it was not until the publication by Henry S. Dow (with whom this historian was for several years associated) in 1872 of the Lumberman's Gazette of Bay City, and a year or two later of the Northwestern Lumberman, by William B. Judson, first at Muskegon and after 1874 at Chicago, that any systematic annual compilations of the lumber production of the entire northwest was undertaken, and while from the nature of things these compilations could give only an approximate idea of the extent of the yearly production, they are sufficiently accurate to be taken as the basis of an estimate, and have been largely drawn upon by the historian, (who since 1870 has been personally connected with the yearly compilations to a greater or less extent.) In the Lewis & Headley annual for 1869, the production of St. Clair county is stated at 51,000,000 feet, and the adjoining counties of Huron 40,000,000 feet; Lapeer, 22,000,000 feet; Sanilac 14,500,000 and Wayne (Detroit) at 55,500,000 feet. For 1873 the production at Port Huron is given in detail in the Lumberman's Gazette, as follows: Batchelor & Sons, 8,500,000 feet of lumber, and 4,500,000 lath; W. B. & J. Hibbard, 5,700,000 lumber; 3,000,000 lath; William Sanborn & Bros., 6,000,000 lumber; 2,500,000 lath; A. & H. Fish, 10,000,000 lumber;

5,000,000 lath; Fred L. Wells, 3,769,210 lumber, 2,191,500 lath; Howard & Son, 3,000,000 lumber, and 2,000,000 lath; Avery & Murphy are not credited with a cut for that year. The reported production of Port Huron from 1867 to 1876 was 302,709,986 feet, increasing from 36,000,000 in 1867 to 56,000,000 feet in 1873, whence it fell to 17,900,000 feet in 1874 and 15,500,000 feet in 1876. The total lumber production of the mills at Port Huron and St. Clair may safely be stated at not far from 2,000,000,000 feet of lumber and shingles, while the log product for the use of mills at Detroit, Toledo, etc., of which no records are available, are stated within bounds at another billion feet, or a total of timber from the streams tributary to the St. Clair River of 3,000,000,000 feet, this being considered a conservative estimate by parties whose intimate connection with the business of that section abundantly qualifies them to judge.

Henry Howard.—The St. Clair river and the lumber operators and operations, carried on upon its banks and those of its tributaries, has been a source of unfailing interest to those who have studied its history, from the days in 1690 when a mill was erected at the mouth of Bunce Creek on St. Clair river, to the mill on Mays Creek in 1742, and that of Enos Morass on Black River in 1812, and as well that of Zepheniah Bunce erected in 1817, all of which are mentioned in the historical and semi-chronological departments of this work. No less interesting is the individual record of those who at a later day were conspicuous in the development and culmination of lumber manufacture in this section, among whom honorable mention must be made of the Hon. Henry Howard, who died at Port Huron May 25, 1894, and whose record as a lumberman and a citizen is among those of the more prominent.

Mr. Howard was the grandson of Nathaniel Howard of Red Stone, Pennsylvania, who was born in 1771, and died in 1846, at the ripe age of seventy-five years, his son John, father of Henry, the subject of this sketch, surviving him. John Howard was born at Red Stone, Fayette county, Pennsylvania, in 1799, and in his young manhood went to Detroit where he engaged in the grocery business. Detroit was but a small hamlet and Mr. Howard added hotel keeping to his other occupation, and was among the first to offer accommodations to the fast increasing army of immigrants to Michigan and the west; he was also among the first to erect business blocks in the young city, "the Long Row" in the rear of the former site of the Michigan Exchange, being a well-known land mark for many years.

Mr. Howard remained at Detroit until the breaking out of the cholera epidemic in 1833-4 when he removed his family to Port Huron, where he soon after engaged in the lumber business. He was married in 1825 to Miss Nancy Hubbard of Detroit, and nine children, four sons and five daughters, were born to them. Mrs. Howard still survives at the ripe age of 89 years. During his career as a lumberman Mr. Howard built three separate saw mills at Port Huron, where he also for several years kept a hotel.

Henry Howard, son of John and Nancy Howard, was born at Detroit March 8, 1833, and was less than a year old when his parents moved to Port Huron, where he grew up to manhood, receiving his education in the schools of the growing city. His father being at this time a lumberman, he gradually and naturally grew into the business, until at the age of twenty-one (in 1854) the firm of John Howard & Son was instituted with a saw mill at Port Huron. This partnership continued until 1877, when, his father retiring, he continued the business alone at the mill on the south side of the river. In 1878 this mill which had outlived its usefulness was abandoned and the recently erected mill of W. B. & J. Hibbard on the north side of the river was purchased, and from that time has been known as the "Howard" mill.

The earlier operations of the firm were in St. Clair county, soon extending to Sanilac and Huron counties, while for the last fifteen years of his life he was a large operator in Presque Isle and Sheboygan counties, where the cutting of long timber, largely in the vicinity of Hammonds Bay and its rafting to mills on the St. Clair and Detroit Rivers, Toledo and Sandusky, and as far east as Buffalo, comprised a large proportion of the business, although his operations were extended to Roscommon, Ogemaw, Iosco, Clare, Gladwin and Arenac counties, which sections were connected by rail with Pinconning in Bay county, where the Saginaw Bay presented excellent facilities for rafting. In these latter operations he was associated with Mr. John Mansfield of Bay City. This branch of the lumber or timber business, the getting out of long sticks for rafting to mills on Lake Erie, has been almost wholly confined to the firms of Howard & Mansfield, and Alger, Smith & Co., of Detroit, and was the legitimate outgrowth of the decadence of the forests tributary to the St. Clair River upon which the mills at Detroit and the Lake Erie district depended for stock, and was at first undertaken by Mr. Howard and indeed by the other firms named for the supply of their own mills. These operations, commenced in 1880, continued until 1893, in which year Mr. Howard disposed of his entire interests in the sections named and invested his means in a large tract of pine timber in Chippewa county of the upper Peninsula, and his business has since his decease in 1894, been carried on under the name of the "Henry Howard Estate," by his son-in-law, Mr. A. D. Bennett as trustee. Mr. Bennett, who in 1885 married Miss Emily Louise, only daughter of Mr. Howard, was for sixteen years bookkeeper at the Port Huron Savings bank, until in 1890 he associated himself with Mr. Howard as secretary and manager of the "Howard Towing Association" which had been instituted for the towing of rafts as well as a general tug business on the lakes and rivers, and included the ownership and control of a large number of the most powerful tugs on the chain of lakes. Mr. Bennett also became interested with Mr. Howard in his lumber operations, and acquired the knowledge which so eminently fits him for the conduct of the large estate. The saw mill has been remodeled and rebuilt at frequent intervals since its purchase in 1875, being stocked from the sources heretofore described, largely the counties tributary to the Saginaw

Bay, dependence for the past three years having been wholly upon that source. The mill capacity is rated at 5,000,000 feet per season. Mr. Howard's interests were not wholly confined to the logging, lumber or tug interests. He was largely interested in vessel property; president of "The Northern Transit Company," of Port Sarnia, and at one time a stockholder in the Star line of steamers. He was one of the organizers of the Port Huron "Times" company, holding the office of president for several years. He was prominently identified with the organization of the First National bank of Port Huron, of which he was president up to the time of his decease. He was president of the Port Huron Gas Light Co., vice-president of the Michigan Sulphite Fibre Co., and the Michigan director of the Grand Trunk railroad lines west of the St. Clair River. He was for a long period vice-president of the Port Huron Engine and Thresher Co., and was prominent in the councils of the Port Huron and Northwestern railway company, of which he was president for the two years 1880 to 1882. In politics Mr. Howard was a staunch Republican, contributing liberally to the funds, as well as heartily supporting that party organization. He served as an alderman for the second ward of the city for fourteen years, and was chairman of the committee on ways and means. In 1882 he was elected mayor, holding that office for one year; he also served as a member of the Board of Estimates, and of the Board of Education. In 1870 he was elected to the State Legislature, and re-elected in 1872, at which time his name was prominently mentioned for the office of speaker of the house, but he declined to allow its use in that connection. Repeatedly his name was mentioned in connection with the congressional nomination, and while not averse to the mention, he would never make any effort to secure the nomination, which was open to him if he would take any steps to secure it. At the time of his death Mr. Howard was a member of the Board of Regents of the University of Michigan.

Mr. Howard was married in 1856 to Miss Elizabeth E. Spalding of New York state, who survives him. To them were born six children of whom Mrs. A. D. Bennett and a son, John Henry are now living. Mr. Howard was a member of Port Huron Lodge No. 58 F. & A. M.; Huron Chapter No. 27 R. A. M., and Port Huron Commandery No. 6 Knights Templar. He was also a member of the Port Huron club, of which he was director and its second president; he was a member of the Lake St. Clair Shooting and Fishing club, and of the Michigan club of Detroit; he was a trustee of the Baptist church, and a liberal contributor to its support. In all his activities of business and citizenship Mr. Howard was a conspicuous type of the leading characters in the development of the lumber industry of the northwest, a class of men who combined all the essentials of an honorable progressive and intelligent race, who destroyed the vast forests of the lake region, only to replace them with fertile fields, populous cities, and all the adjuncts of that higher civilization which within a half century has so fully developed.

Jacob P. Haynes.—In presenting a sketch of the life of Jacob P. Haynes of Port Huron, Michigan, we carry the reader back to those early days, when the production of lumber was largely confined to the State of Maine and the States of New York and Pennsylvania, when Eli Haynes, the grandfather of Jacob, was among the operating lumbermen of the Susquehanna River near its junction with the Chemung River, and where James, his son, acquired that knowledge of the business, which led him to devote his life's energies to its pursuit, and to bring up his son Jacob P. to the same business. Of the lumber operations of Eli Haynes we are able to ascertain little more than the fact of his being a lumberman in that rapidly developing field of lumber production, but of his son James it can be said that he married Celesta (Belknap) Haynes, and the parents of the subject of our sketch settled at some period previous to 1838 in Allegheny county, New York, and he was numbered with the enterprising men who developed the lumber business, which in later years attained a vast volume in that section. In 1838 James removed with his young family to Michigan, and was among the pioneers who settling at Port Huron, inaugurated the business which for so many years since has made the State of Michigan famous as the seat of an industry whose volume has for several years been rated at a yearly value which in the country at large is measured at no less than one billion dollars. Port Huron was at that time the center and soul of the lumber industry of the state, and Mr. Haynes purchased large tracts of the excellent pine lands which for many years made the St. Clair River famous and for many years carried on extensive operations upon the Black River and other streams emptying into the St. Clair and upon his son Jacob attaining his majority, admitting him to a partnership, under the name and title of James Haynes & Son. The businesss at Port Huron was continued and extended its operations to the Monastique River of the Upper Peninsula at the mouth of which they purchased a saw mill known as the Clark & Thompson mill, which with the rapid introduction of improved machinery, was from time to time remodeled to conform to more modern and economical methods of manufacture, and found abundant timber resources in a tract of 10,000 acres of pine lands upon the waters of that stream. After operating this mill for about fifteen years the firm sold its entire interest in the mill and timber to Charles T. Harvey of Chicago whence it went into the hands of the Chicago Lumbering company. During the time of operating this mill, the firm continued to operate upon the Black River at Port Huron and its tributaries, acquiring large bodies of pine lands in this and other portions of the State. In 1864 the father (James) retiring, Jacob continued the business upon his own individual account, and two years later discontinuing the manufacturing branch, he for seventeen years made a specialty of dealing in pine lands, in which he was eminently successful. Mr. James Haynes, father of Jacob, died in 1868 at the age of 68 years.

In 1883 the firm of F. J. Haynes & Co. was established, consisting of Jacob P. Haynes and Frank J., his son, who had attained his majority. Mr.

Haynes thus becoming associated and directly interested with his son's start in life. This firm continued until 1886, the seat of operation being at Cedarville in Mackinaw county, where an extensive business was built up in the white cedar of that section, and which comprised cedar posts, telegraph poles, railroad ties, etc., including to some extent white pine, which was worked up in the saw and shingle mill erected by the firm, which maintained a wholesale and retail yard at Port Huron as the central depot of its operations. In 1886 Mr. Haynes retired from the firm, his second son, Frederick R., taking his place, the firm name remaining the same, until in 1894 his third son, William J., was admitted his father purchasing a one-third interest for that purpose, the firm continuing under the same name. Jacob P. Haynes has been a successful business man, and during a long and busy life has not only accumulated an ample estate, but has gathered about him a large circle of friends who esteem him for his many excellent qualities as a citizen and a neighbor, no less than as a business associate. He has large investments in the fir and cedar of the State of Washington and in the yellow pine of Alabama and Missisippi, while the possessor of a large amount of city property in the city of his residence.

Mr. Haynes was married in 1860 to Miss Mary Jane Young of Port Huron, who has borne him four sons, one, James, who died at a tender age, the others have been mentioned above, as worthy successors of an intelligent and enterprising father, who has for several years past confided his business interests largely to their care. Mr. Haynes is a Republican in his political affiliations and is a respected member of the Masonic fraternity of Port Huron. Thus briefly have we touched upon the experiences of a family to whom the occupation of the great grandfather has been perpetuated to the fourth generation, each of which has and does maintain to the fullest extent the civilizing and refining influences which an intimate connection with nature's forests cannot fail to exert upon such as will yield to their humanizing influence.

Frank J. was married in 1883 to Miss Anna E. Crofford of Port Huron, Mich., and they have three children born to them, two sons, James J. and Edward A., and one daughter, Mary L. Frederick R. was married to Miss Mary J. Walsh of Port Huron in 1888. They have one daughter, Helen. William is still single.

Nelson Mills.—For many years the St. Clair River was a noted point for ship building and Marysville disputed honors with Marine City (then known as Newport) in the production of the sail and steam craft which the increasing development of the great west demanded for the transportation of its products and its supplies.

In 1844 Nelson Mills, who was a native of Nova Scotia, where he was born in 1823, became a resident of Newport, later known as Belle River, and now as Marine City, and engaged in ship building, a business to which he had devoted considerable time in connection with farming in Upper Canada, before coming to the States. In 1850 he formed a partnership with Myron Williams, a millwright by trade, and a native of Vermont, and together they purchased a tract of 2,000 acres of pine timber northwest of and but a few miles from Marysville (at that time known as Vicksburg) and also purchased the steam saw mill of J. L. Kelsey, located in the township of St. Clair on the Fort Gratiot turnpike, about two and a half miles from the river. This mill, like a majority of the mills of the day, was a single saw mulay. This mill was soon after destroyed by fire, but six weeks later the indomitable energy of the men composing the partnership had a new mill up and in successful operation. The timber tract was considered a large one in those days, and was estimated to cut 14,000,000 feet of such timber as was at that time considered worth cutting, it being the custom to select only the finest trees, and those which were sure to yield a large proportion of "uppers" or "clear," leaving the rest to be destroyed by fire or to stand its chance of ever being required for manufacturing purposes. As a result of this selection it was thought a poor lot of lumber which would not run from thirty to fifty per cent to upper grades. For the better grades the firm found market at Buffalo and the east, while the poorer and coarser was shipped to Chicago, which was now rapidly developing its trade with the western prairies, and increasing its demand for lumber, which was to a large extent received by vessels which, having taken a cargo of grain down the lakes sought a return cargo for ballast as a measure of safety in returning through Lakes Huron and Michigan, which were looked upon as possessing dangers which in later years are not feared. With increasing prosperity and with an intelligent perception of the certainty of a vast increase in the demand for lumber, Williams & Mills purchased a tract of 7,000 acres in Sanilac county on the Black River, the logs from which were run to Port Huron and rafted to Vicksburg (now Marysville) where they were manufactured. In 1860 or during the war Mr. Mills purchased his partner's interest in the business, which he soon after disposed of to his brother, Barney Mills, and the firm became in 1862, N. & B. Mills. With increasing prosperity this firm in later years purchased a large tract of timber land in Ogemaw county, tributary to the Rifle river, which in time became their resource for a timber supply. In 1862 also Mr. Mills in connection with L. M. Skidmore, opened a wholesale lumber yard at Toledo, under the firm name of L. M. Skidmore & Co., which continued in business for six years. About 1863-4 the brothers became interested in the vessel business, their first venture being in the building of the scow schooner Antelope having capacity for carrying 75,000 feet of lumber, placing her in the Chicago trade where she not only cleared her first cost during the first season, but was sold at the end of the season for more than her first cost. This phenomenal success induced the brothers to dip deeper into this branch of business, and for many years the Mills Transportation company, the Pawnee Boat company, and other lines comprising twenty or more steam and tow barges as well as sailing craft, have been important factors in the carrying trade of the great lakes. The company's main office has always been at Port Huron. As a matter of history it may here be remarked that up to the summer of 1861 the passenger transportation of the lakes had been almost wholly confined to steam propellers (which had largely superseded side wheel steamboats) and in lumber and other coarse freights, to sailing vessels. It was quite unusual to transport lumber upon steam craft, until in 1861 the old steamer Cataract was utilized for that purpose, and after making a few trips, was burned while loading at a dock at Lexington on Lake Huron. Almost immediately after this several of the palatial steamers which had been thrown out of profitable commission through the competition of the railroads, were converted into tow barges, being hauled from port to port by powerful tugs, and this proving profitable, it was but a common sense transition to the substitution of steam barges which not only towed from one to a half dozen craft which depended upon them for motive power, but carried enough cargo themselves to, in most cases, pay the expenses of the voyage. In the earlier days of the barging interest, only old vessels which were approaching, if they had not already reached the period of condemnation, were used in the tows, but the building of cargo carrying steam barges, with tows of from three to four or more barges, each of capacity for carrying from 300,000 to 500,000 feet or more of lumber was not slow in developing, until by 1890 the bulk of the carrying trade of the lakes was done by barge lines, and the Mills Transportation Co. is one of the oldest and leading companies in the business, and is as well the owner of a class of large steam tugs suitable for the towing of rafts of logs, or of the heavier class of towing upon the lakes. The firm of N. & B. Mills by no means abandoned the lumber business when they engaged in ship-building, but has continued the manufacture of lumber at Marysville to the present day, their two mills, (one of which, purchased from James W. Sanborn, was built in 1871 and is a two circular mill 50,000 to 75,000 feet per day capacity) being supplied with timber cut in Ogemaw county and rafted from Rifle river and Tawas Bay. The old mill erected in 1862-3 has been remodeled and improved from time to time, and is now a two-band mill, with an average production of 60,000 to 70,000 feet daily. The Sanborn mill is largely devoted to the sawing of long timber and special bills.

The firm in 1864 established a wholesale and retail yard at Cleveland, Ohio, in connection with Caleb Jewett under the firm name of Mills & Jewett, which some years later was changed to N. Mills & Co. and in 1895 to Mills, Carleton & Co., and to these different houses has been and is shipped the major portion of the mill cut. They have also an extensive planing mill and branch yard at St. Clair, in connection with a factory for the manufacture of sash, doors, etc. Like many another enterprising lumber firm they believe in encouraging home industries, and they are interested in the Port Huron & Sarnia Ferry Company, and the Port Huron Engine & Thresher Co. Mr. Mills is a director in the Port Huron Savings Bank, and is interested in a popular and rapidly growing summer resort on Stag island in the St. Clair river, and is largely interested in farming in St. Clair county. In 1889 Mr. Mills together with his son John, in connection with Isaac Bearinger of Saginaw, purchased a 10,000 acre tract of land in West Virginia which is heavily timbered with black walnut and yellow poplar, and in 1895 they erected a saw mill on the Big Sandy river, and commenced manufacturing this valuable timber on an extensive scale.

Mr. Mills was married in 1862 to Miss Mary Williams of Marysville, daughter of his former partner, and the union was blessed by an issue of three sons and four daughters. The elder son John E. graduated at Ann Arbor in 1885, and is now interested with his father in several business projects. Myron W. the second son is also a graduate of Michigan University (1887) and is actively engaged in the lumber business at Marysville; both are married. A third son David W. is attending school at the Military Academy at Faribault, Minnesota. The eldest daughter Margaret is the wife of Walter J. Hopkins of St. Clair, the other daughters Hannah, Emeline and Hallie are still at home.

Mr. Mills is a Republican in politics, his first vote having been cast for Fremont in 1856, and while a devoted adherent to the principles of the party and often solicited to accept office, his business interests have compelled refusal, except in minor County offices which have been thrust upon him. As a business man and citizen he is highly esteemed in the community where he has resided for a half century.

Stephen Moore.—The early lumbermen of Michigan were to a large extent men who had had experience in the lumber woods and operations of Maine and New Hampshire, and had transferred their operations to the west, the fame of Michigan timber inducing the belief that it was soon to take the place of the coarser timber of the east, which as early as 1840, had been secured by the larger operators, and already showed signs of denudation, to an extent which augured poorly for profitable operation by men of small capital. Among those who had heard of the vast pine forests of the west, and of their immensity, was Stephen Moore whose name subsequently became well-known in the lumber circles both of eastern and western Michigan.

Mr. Moore was a native of the State of Maine, where he was born in 1828, the son of William Moore, who was a native of Manchester, New Hampshire. At the age of sixteen, Stephen began work in the woods, in the "breasting" of shingles, the manufacture of which was at that time wholly confined to a splitting of the blocks with a "froe," into slabs of suitable size, which were then shaped, dressed and tapered with a drawing knife, a shingle being accounted as a piece three inches in width, eighteen inches in length one-half inch at the butt, tapering to one-sixteenth of an inch at the point, and these were packed in bunches containing one hundred. It was not for several years later that sawed shingles were introduced, and the popular prejudice for many years after prevented them from taking the place in the trade which they have since assumed, to the utter exclusion of the breasted product. When Stephen was seventeen years of age, he in company with a cousin, purchased a small piece of spruce timber land, which they cut the following winter, selling the logs to mills at Mill Town. It was largely the custom of

J. Mills

the day in that section, to cut and market the timber the full length of the tree, and as the snow was usually quite deep, it was economy to peel the bark in the woods, so as to present the minimum of resistance to the teams, usually oxen, of which from two to four or six were requisite to haul the long logs to the banking ground, whence they were floated to the mills, where they were cut into such sizes and lengths as was most expedient. Maine lumber at this time reached the distributing market in all shapes and sizes as well as lengths, from the square timber into which the main body of the best trees was cut, to the varying lengths of from ten to sixty feet, taken from the swell and sides of the stick. About 1848 Mr. Moore, now twenty years of age, went to Michigan, and commenced work in the woods of Black river in St. Clair county, in the camps of Daniel B. Harrington, an extensive operator who was located about three miles from Port Huron. For two years Mr. Moore worked in these camps in the winter, and in the saw mill in the summer. Like many another who had been accustomed to the eastern methods of lumbering, Mr. Moore thought the western methods of sawing the timber into short lengths in the woods was a mistake, but he soon found that the size of the timber and the demands of the market, required less long timber, and that the quality of the stock no less than its adaptation to western requirements made the sawing of boards and plank a prerequisite to success in its disposition. About 1850 Mr. Moore engaged to work for Alfred A. Dwight of Detroit, who was at that early day one of the heaviest operators on the Black river, and for him and others he drove team, worked in the woods, and followed the drive upon the river, and this continued for about nine years, he for seven years of this time being "Boom Master" on the Black river. The drives of that day were from six to ten million feet, and his duties consisted in seeing that the logs were properly assorted according to the mark of the different operators, and delivered to the mill boom of each. About 1859 he became foreman for Avery & Murphy on Mill Creek, and remained with them for twelve years, running their camps in winter, and looking lands for them in summer, their operations during this time being confined to the lower peninsula of the State. During this period he secured for himself some choice locations, established camps and sold logs. About 1874 he took a position with Sanborn, Rust & Co., as superintendent of their large lumbering operations on the Muskegon river, at the same time carrying on operations for himself in the vicinity of that stream, putting in eight to ten million feet for them, and one to two million feet for himself. In the meantime Mr. Moore had secured a location of 320 acres of the finest farming land in the township of Fort Gratiot, near the city of Port Huron, which was the scene of his earlier operations, and which has remained in his possession for thirty-eight years and is accounted one of the best farms in the State. Mr. Moore was married in 1856 to Miss Eliza A. Thompson of New Brunswick, who had borne him eleven children previous to her decease in 1884, having proved a faithful wife and mother, a help-meet in the journey of life, passing away mid the tears and sincere regrets of a large circle of loving friends. Of his children, the two eldest, George and Frederick are bankers at Port Huron, the third, Stephen is associated with his father in the office of County Treasurer, to which Mr. Moore was elected in 1894; the three younger sons remaining upon the farm; the two elder sons and one daughter are married. Mr. Moore is a Republican in politics, and in his religious affinities a Congregationalist. He stands high in the community as an enterprising, industrious, upright and useful citizen.

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CHAPTER VII.

REMINISCENCES OF EARLY MICHIGAN AND ITS DEVELOPMENTS, BY AND WITH SKETCH OF ALFRED A. DWIGHT.

Few men have played a more conspicuous part in the development of the State of Michigan, in its general interests, and particularly its lumber interests, than the venerable Alfred A. Dwight, who at the age of nearly eighty-three years, is still an honored resident of Detroit, and whose clear mind and unimpaired faculties are well calculated to give an insight into the early history of the lumber business of the State, such as is likely to be obtained from no other source.

Mr. Dwight was a native of Thompson, Windham County, Connecticut, where he was born March 27th, 1815. He was descended from Puritan stock, John Dwight the progenitor of the numerous Dwight family of the country having emigrated from England and settled in Dedham, Massachusetts in 1636.

Alfred at the age of fourteen years, entered the employ of a mercantile firm in Worcester, Mass., where he continued for six years, when the death of his father who had removed West in 1831, made it necessary for him to visit Detroit in the interest of his widowed mother and the five younger children of the family.

In a personal letter to the historian, Mr. Dwight says:

"I landed from the old steamboat "Henry Clay" on the 30th of October, 1833, having been seven days on the trip from Buffalo to Detroit, the weather being extremely boisterous. I found a quaint old French city of about 3,000 inhabitants, without sidewalks, paving, sewerage or any of the like modern appliances of civilization. Its water system consisted of barrels drawn by French ponies, and the water delivered at dwellings at ten cents per barrel. The population embraced some very enterprising men, such as "Uncle Ben" Woodworth whose hotel and stage lines were the reliance of multitudes of new comers; Judge Cauniff, Commodore Oliver Newberry, whose steamers and sail vessels at a later day enabled him to command a practical monopoly of the carrying trade of the lakes for many years; Williamr and Benjamin Brewster, Judge Shubarl Conant; Judge James Abbott, the Messrs. F. & C. H. Buhl, who were the leading fur dealers of the days when commercial intercourse with the native Indians gave the fur traffic an importance hardly equalled in any other department of business. At this time the territory was simply a wilderness of timber lands, with a few highways penetrating the interior from Detroit to certain objective points, and known as Military roads, having been constructed by the government for the general purpose of the more readily reaching such points as might be the object of attack in case of trouble with the Indians. These included one from Detroit to Port Huron and Port Gratiot; one from Detroit to Saginaw; and with twenty miles cut out from Detroit to Farmington the projected road to Grand River was abandoned in 1834, in consequence of a decision of the United States Supreme Court that the government was not authorized by the Constitution to build military roads in time of peace. The abandonment of this road was a great disappointment to such as had selected homes or projected villages on the surveyed line. It was to be to them what the Erie Canal was to the people of New York, a great thoroughfare to the vast region beyond, and of the highest importance to all who sought homes in Michigan or upon the prairies of the West.

The value of the vast forests which since that day have contributed more than one hundred and fifty billions of feet of the finest building material for the use of the nation, was just beginning to dawn upon the capitalists in the East, and to a limited extent was appreciated by the settlers of Michigan, but without roads to reach them could be of little value to anyone. At best, these roads were but rough trails cut out of the forest, winding among stumps and through quagmires and marshes, but they would lead to a haven in which hope painted bright pictures of prosperity. Who can fathom the enterprise, the push and grit of the hardy settlers, who, in spite of obstacles pressed through the forest in which roads were denied them by the highest court in the land, and have transformed the wilderness and the prairie into a garden, teeming with the food products of a suffering world, while the village of Detroit has become a noble and beautiful city, and Michigan takes rank among the richest and most prosperous states of the Union. Who can adequately measure the struggle with poverty, the hardships and privations of the early settlers through which the great transformation has been accomplished, or the indomitable energy and perseverance of the people who never yielded to misfortune, although the wolf of hunger oft times laid at their doors.

Denied the aid of the government, these hardy settlers opened highways, constructed ditches, laid out villages and organized townships, built schoolhouses and churches, cleared farms and organized governments, and out of these incipient stages of pioneer experience, have raised up a great State, adorned with matchless cities, universities and colleges, and from its forests have sent billions of feet of lumber, and its millions of bushels of grain to house and feed the starving population of other nations while contributing to the abnormal development of the grandest nation upon which God's sun is permitted to shine."

Mr. Dwight was from the earliest, one of the most active of the pioneers of the young State. He was essentially a "man of affairs," a pioneer whose active business enterprises have not been confined to any one city or county of the State. During his mercantile life in Detroit, the firm with which he was connected purchased and shipped one hundred thousand pounds of the first wool which was exported from the State, thus giving encouragement to the new settlers in the development of sheep raising. They were among the earlier pioneers in the development of the lumber business of Huron county, the seat of the first commercial development of this vast industry, purchasing large tracts of timber lands, and constructing and operating saw mills; they were the inceptors of the industry at, and founded the flourishing village of Port Austin at which place they constructed the second gang mill in the State, at an expense (so great for that day) of $50,000.

While for more than fifty years a citizen of Detroit, Mr. Dwight's enterprises have extended through the counties of Lapeer, St. Clair, Huron, Sanilac, Ingham, Mecosta, Otsego and other counties of the State. He, with his associates, was a pioneer in selecting and locating lands in Otsego county, and the first white settler to undertake a business in the development of that, then far northern wilderness, clearing up a farm of more than one hundred acres, laying out and constructing a State road from Torch Lake near Traverse Bay in Antrim county to Otsego lake in Otsego county, to which he introduced the first of its settlers, and caused the organization for judicial purposes of the first three townships of the County, and subsequently, through his efforts, of the passage by the legislature in 1868-9 of an act incorporating the County, embodying in the Act provisions enabling him, with his business associates, to open up this vast region rich with timber, which was hitherto unapproachable, through the construction of thirty miles of slack water navigation in the North branch of the Au Sable river, by the erection of dams for the creation of a water reserve for the flooding of logs, thus overcoming the shallow waters of that stream, and affording cheap and reliable means for utilizing the hundreds of millions of feet of pine timber from the head waters of the Au Sable to the navigable waters of Lake Huron. The value of this one enterprise tothe owners of timber (which now assumed a market value) on this stream, to say nothing of its value to timber owners on scores of other streams, which were thus shown to be available for like improvement, can be estimated only by millions of dollars. The firm of Smith, Kelley & Dwight also erected a large saw mill at Otsego lake, with the advent of the northern extension of the Michigan, Central Railroad, affording an outlet for their product of 15,000,000 feet of lumber and 5,000,000 shingles yearly. This firm was succeeded by that of Smith, Gratwick & Fryor.

Mr. Dwight was in the earlier days the active agent in behalf of New England proprietors in the removing of vast quantities of timber from large tracts of land in St. Clair and Lapeer counties, and in aiding in the laying out and building of roads, the construction of school-houses and churches and the organizing of townships and of inducing settlement upon lands under his control, (one settlement comprising more than sixty German families, being gathered by his efforts.)

It is to such sturdy and enterprising business men as Mr. Dwight, no less than to statesmen, politicians and soldiers, that the great State of Michigan owes its present advancement and high standing in the sisterhood of States.

Mr. Dwight has long been recognized as wielding a most beneficial influence over the morals of the various sections in which his energies have been exerted. He is a member of the Jefferson Avenue Presbyterian Church of Detroit, of which he was one of the organizers and in which he has held the office of ruling elder from May, 1867, to the present time, and he has faithfully endeavored to mould the character of the localities in which his interests have given him influence, in accordance with the highest principle of morality and religion.

Of his early connection with the lumber business of Detroit and the St. Clair river, his reminiscences are of value.

"After settling up the affairs of my father who died at Detroit, 1833, I obtained employment in a drygoods and clothing store of the village. This was in 1834 at a time when Detroit was suffering from its second visitation of cholera, which proved to be of a most fatal character, and the people were panic stricken. The disease had been heralded from Quebec and the east, and its breaking out caused the greatest alarm. The city was quarantined, all business was suspended, and as the disease was thought to be contagious, many fled with such of their belongings as could be hastily gathered together, to the country for refuge from the fell destroyer. The epidemic lasted about three months, and the death rate reached a total of about 700 in a population of 3,500. I spent the major part of this year in a clerkship with J. & M. Palmer, and later undertook a venture on my own account in a country store at Kensington in Oakland county. In 1837-8 I formed a partnership with Rolin C. Smith and Henry Glover, under the firm name of Smith, Glover & Dwight, and conducted a wholesale and retail dry good, clothing and grocery business for a period of seven or eight years, handling farm products quite extensively, including wheat, flour, wool, pot and pearl ashes, (which were extensively made by the farmers from the ashes made in the clearing up of their lands) together with lumber, lath and shingles. In this way the firm became interested in lumbering, and in 1852 erected a saw mill at the foot of Riopelle street, where we manufactured pine and hardwood lumber. Our first experience in this line was in the purchase of a half million feet of rich black walnut logs from the banks of the Sni Carte in the townships of Sombra, Walpole and Chatham, Canada West, at a cost of five dollars per thousand feet, rafting them to our mills at Detroit, where they were manufactured into broad and beautiful counter tops, newell posts and other dimensions; this was later shipped to Troy, N. Y., where it was sold on commission. Our pine log stock came from the

Mill Creek and Black River pineries, in rafts from Port Huron.

About 1853, Smith & Dwight became proprietors of a tract of choice pine lands in Huron county, and erected a large gang saw mill, (steam power) at Point Au Barques. This was the second or third gang mill as yet erected in the State of Michigan, the first being that of Curtis Emerson of Saginaw, and Samuel Pitts of Detroit. The company were also proprietors of a steam saw mill at Cherry Creek on the Lake Huron shore about twenty miles above Lexington, in Sanilac county, the product of which, like that of the mill at Point Au Barques, and a majority of that manufactured at the Detroit mill, found market by Lake to Toledo and Sandusky, Ohio, through which points a large trade was built up in Dayton, Cincinnati and other interior points. At this period also, the firm purchased and were lumbering considerable tracts of pine timber lands on Mill Creek and Black river in St. Clair and Lapeer counties, driving the logs from twenty-five to thirty miles to Port Huron and there forming them into rafts for Detroit. Little was known at this time of the vast tracts of Cork pine timber which graced the hillsides and valleys of the more northerly sections of the State; while anything like lumbering was unheard of in the Upper Peninsular, communication with the northern part of the State in winter being wholly by dog train, while few or no settlements of any note had been established in that far distant region.

In 1857 I retired from the firm of Smith, Dwight & Co., selling my interest in the lands, mills, etc., which formed its assets.

During the period 1857 to 1865, mills for the manufacture of lumber were erected in Detroit and operated for more than a quarter of a century, with a yearly production of from 75,000,000 to 100,000,000 feet of lumber by Samuel Pitts. Buckminster Wight, (succeeded by H. A. & S. G. Wight), Smith, Dwight & Co., Bugbee, Benson & Co., S. C. Reeves & Co., Frank & Stephen Moore, William Moffat (later Moffat & Eatherly) and Hubbard & King.

During these years, and, say, from 1870 to 1880 the pine lumber business had acquired an immense volume, exceeding 2,000,000,000 feet in the aggregate in the State, and had become the leading industry in fact of the Northwest, which produced an aggregate of no less than 3,000,000,000 feet in 1880, while the production in 1884 reached 8,000,000,000 in the Northwest, of which Michigan contributed nearly one-half, the zenith being reached in 1892, with a total of 9,000,000,000 feet in the northwest, the Michigan contribution being 4,000,000,000 feet. How great the contrast with the days less than a half century ago when the virgin forest reverberated only to the footfall of the hardy explorer or that of the half civilized Indian, whose savage progenitor had held undisputed sway through illimitable periods of time, where now are populous cities owing their prosperity to the valuable pine timber which once covered the face of the country, but now, alas, gone, never to be replaced.

The William H. Imlay & Co. tract of 10,000 acres of pine and hardwood lands was located about twenty-five miles west of Port Huron on the present line of the Grand Trunk railroad, and it contained a large amount of the choicest white oak, with fully 100,000,000 feet of equally choice white pine, on which taxes had been paid for many years. This Company belonged in Connecticut and acquired the lands as an investment which did not give promise of yielding the expected returns. During 1857, I was invited to meet the proprietors in Hartford, and an arrangement was made by which I undertook an agency for the property in an endeavor to convert it into money. Taking possession under this agency, I made a careful examination of the tract, with an estimate of its timber and of the conditions of Belle river and the South branch of Mill Creek as driving streams, and decided to improve them by the building of flooding dams and the removal of drift wood and other obstructions, which was done at a cost of about $2,500 which was shared to the extent of $250 by Stephen Moore, who owned some pine lands near the present site of Imlay City which he desired to lumber. I also improved the South branch of Mill Creek by making a log channel from the outlet of Dwight Lake, (so called), some two and a half miles northwest of Capac, to the main stream below, shortening the haul on many millions of timber, saving a distance of three or four miles. The fitting of Belle river for log driving purposes gave the Imlay pineries more prominence, and resulted in the sale of 2,800 acres to Henry Benson, a saw mill proprietor of Detroit, who lumbered the tract and took the logs to his mill. This sale amounted to $42,000.

I was engaged in the management of the Imlay tract for ten years, from 1857 to 1867, during which time I cut and removed from four to eight millions feet per year, some of which was sold in the log and other manufactured into lumber, at mills at Port Huron and Marine City, manufacturing absorbing the lion's share. The lands after removal of the timber were sold to German settlers who made most excellent farms out of them, and the whole tract was disposed of with satisfactory results.

About 1860 I undertook an exploration of the vast timber lands in the interior from Thunder Bay and the head waters of the Au Sable river, with a view to purchase and sell, or to manufacture as might be desirable. This region was as yet practically unexplored, but the projected extension of the Michigan Central railroad led me to believe in its future development. After some years of research I, in 1866, formed a partnership with Edward Smith of Forester, Michigan, and James B. Kelley of Albany, New York, under the name of Smith, Kelley & Dwight for the prosecution of a general pine land and lumber business, and was mainly instrumental in bringing to the ownership of this company over 32,000 acres of choice pine timber lands on the head waters of the Au Sable, in the vicinity of Otsego lake.

Otsego county was not yet organized, in fact, there was not a white settler living within its borders; there was no railroad and no wagon road; geographically, the county was situated in the interior, some 40 miles easterly from Lake Michigan, and was penetrated by the head waters of the Au Sable river, while its altitude was some 1,100 feet above the waters of Lake Huron. It was enriched by a luxuriant growth of massive pine timber, considerably intermixed with hardwoods, and if accessible, presented an attractive field for the explorer and pine land buyer. A temporary survey of Otsego lake and of the streams flowing out of it, which were the real source of the Au Sable, developed the fact that an extensive pioneer work must be undertaken by some one before these valuable timber lands could be made available, and this pioneer work fell upon my shoulders. Having no competitors to combat, I succeeded in obtaining the passage by the legislature of an Act (No. 432, approved April 3d, 1869,) for the establishment of a State road from Torch lake to Otsego lake, a distance of thirty-five miles through a dense forest, with an appropriation of highway taxes for four consecutive years, upon every alternate section of land in Otsego county. This, aided by individual subscription, afforded the means for constructing a highway, which became the only practicable route for transporting material from Traverse Bay to Otsego lake, and the only means by which the new settlers who soon began to seek homes and employment in this rich neighborhood found ingress and egress.

The splendid pine timber on Au Sable heights (so termed) was by many estimated at 500,000,000 feet or more, with no natural outlet save by the waters of the north branch of the Au Sable river, which explorers pronounced too broad, too shallow and too rapid a stream to be available for log driving. A competent engineer, however, made a careful survey of the branch from town 30 North to its confluence with the main stream, a distance of thirty miles or more, revealing the surprising fact that the fall in that distance was more than 300 feet, with more than twenty beaver dams and gravel beds to obstruct the channel, rendering dubious the project of creating a successful driving stream. Nevertheless resort was had to the legislature, and by dint of great personal effort, the passage of Act No. 149 (Session laws, 1869) was secured, under which a corporation was formed to make this branch a driving stream, Smith, Kelley & Dwight being the only parties who interested themselves, or who had the nerve, foresight and essential means combined with faith, to undertake the enterprise, they subscribing the stock and undertaking the work. A large amount of money was expended in clearing the channel of the beaver dams, gravel beds and timber obstructions, widening and deepening the stream where necessary, and in the construction of seven substantial dams for flooding purposes, by which means slack water navigation was established for a distance of over thirty miles, thus opening the stream to capacity for floating all the timber which would naturally seek this channel for an outlet. Before this time a canoe with one man in it could hardly force a passage through any part of the branch.

At the session of the legislature in 1875 the same pioneer force procured the passage of an Act for the organizing of the County of Otsego (Act 32) and began to assert itself in the new county. Farms were cleared up, highways constructed, and the firm erected a saw mill at Otsego lake, with a capacity for cutting 16,000,000 feet of lumber and 5,000,000 shingles annually, which found outlet by the Michigan Central railroad, which by this time (1873) had reached the young village of Otsego lake.

The construction of the Grand Rapids & Indiana railroad and the extension of the Mackinaw division of the Michigan Central railroad began to stir the public mind and call attention to the more northerly portion of the State from about 1870, and with their completion to various points during ensuing years a great impetus was imparted to lumber operations in this portion of the peninsular through the facilities afforded for the transportation of men and material from the Saginaw Valley on the east and Grand Rapids on the west, which formed the base of supplies for Gladwin, Ogemaw, Roscommon, Crawford, Otsego, Montmorency and Cheboygan counties via the Michigan Central, and Montcalm, Mecosta, Osceola, Wexford, Missaukee, Kalkaska, Charlevoix and Emmet counties via the Grand Rapids & Indiana road, thus reaching the sources of all the great log driving streams of the lower peninsular, viz., the Tittabawassee and its many tributaries, the Rifle, Au Gres, Au Sable and Thunder Bay rivers emptying into Lake Huron, and the Muskegon and Manistee rivers with their many branches, emptying into Lake Michigan, with the Cheboygan and Pigeon rivers flowing northward to the Straits of Mackinaw, opening to utilization vast tracts of timber, which until this time, had been considered too remote from an economical standpoint, to be available for lumbering operations.

Through the courtesy of Henry Russel, Esq., of the legal department of the Michigan Central railroad, I am enabled to give the dates at which the Mackinaw division was opened for traffic, viz., to Wenona, (West Bay City) December 6th, 1867; Standish, July, 1871; Wells, December, 1871; Otsego lake, May, 1873; Gaylord, July, 1873; Mackinaw City, 1881. During these years the Grand Rapids & Indiana road was making rapid strides toward completion, and opened for traffic to the Straits during the year 1882.

Mr. Dwight retired from active business and has since resided in Detroit, full of years, with a record of usefulness to his fellowmen, honored by all who have known him, and calmly awaits the summons to a land of higher activities, and greater honor.

CHAPTER VIII.—DETROIT.

ITS EARLY IMPORTANCE AS A SAW MILL TOWN. SKETCHES OF LEADING LUMBERMEN.

PRACTICALLY, simultaneous with the beginning of the saw mill industry on the St. Clair river of which previous mention has been made. Detroit was recognized not only as a favorable market for the sale of lumber, but as well for its manufacture.

Hon. C. C. Trowbridge, a pioneer lumberman of Detroit relates how in 1832, he with Hon. E. A. Brush and a warehouseman named Josiah A. Dorr, neither of whom knew more of a saw mill than of eating rice with a chop stick, conceived the philanthropic idea of building up a big city and adding greatly to the comfort of its people by building a steam saw mill. Dexter Merrill was engaged to build the frame of the mill, which had a heavy gate, or sash, attached by the pitman direct to the piston of a very small engine; when they gave it steam, the piston plunged through the cylinder head and the whole thing crashed to pieces, and thus ended the first endeavor to make Detroit a great saw mill center, although subsequent experiments resulted in a great measure of success, and Detroit did become an extensive producer of lumber cut from logs floated down the St. Clair river from the Black river and other streams.

Subsequent to the experiment of Messrs. Trowbridge and Brush, our records of the earlier saw mills of Detroit are scarcely satisfactory. That there was a mill built soon after the one mentioned, probably a repair of the Trowbridge & Brush mill, is assured, and as the names of Doctor Rice, —— Clark, E. A. Brush and others are connected with a mill which was in operation in 1834, it no doubt was the same. This was a single sash saw of capacity for cutting two or three thousand feet daily, and was later purchased by Buckminster Wight and Joseph Coffin, who operated it by lease for some time before purchasing it. This mill was located on the river near the foot of what is now Brush street and the engine was constructed by Harvey Williams later of Saginaw. Mr. Wight continued to operate this mill until in 1850 he built a new mill near the foot of Wight street and operated both, as the demand for lumber was rapidly increasing. H. A. & S. G. Wight, sons of Buckminster Wight, in or about 1857 erected a mill at the foot of "Joe" Campau avenue, with the more modern, and recently introduced circular saw, as an adjunct to the upright and gang.

Samuel Pitts, whose name was for half a century connected with lumber manufacture at Detroit and Bay City, built a mill in 1845 at the foot of Dubois street, which was operated by his son Thomas, and son-in-law, Thomas Cranage, until some years subsequent to the death of the elder Mr. Pitts in 1868, the main business of the firm being subsequent to 1855 at Bay City, where the house of Thomas Pitts & Co. still continues. This mill (1845) had two mulay saws, and manufactured about 2,000,000 feet yearly. With frequent rebuildings and adaptations of modern machinery this mill later became one of the best mills in the State. Mr. Pitts is credited with the introduction of the first gang in the State; he was for a time associated with a Mr. Farland, the firm being Pitts & Farland.

About 1850-1 Rollin C. Smith and Alfred A. Dwight, who had succeeded to the general mercantile business of Smith, Glover (Henry), & Dwight, in the course of which they had dealt in lumber and had taken lands in payment of debts, some of which lands were located in the pine forests of Black River, now built a mill at the foot of Riopelle street, which contained two mulay saws, and a siding mill, with capacity for cutting from ten to twelve thousand feet per day. Mr. Dwight subsequently became one of the heaviest representatives of the lumber business of the eastern part of the State. (See sketch). The mill of this firm afterward passed into the hands of Oliver Bugbee of Buffalo, and still later was operated by Henry Benson, it was located near Riopelle and De Quindre streets.

In 1852-3 Hugh Moffat built a mill with three mulay saws, near the foot of Shane street, the manufacture in which was about 4,000,000 feet per year. This mill was burned in 1858, but at once rebuilt with two circulars and a gang of about 15,000,000 feet yearly capacity, and ran until 1885, when it was torn down and a new mill erected—a more modern structure, which in 1895 was sold to the Delta Lumber Company, who practically rebuilt it with a circular, band and gang. In 1870 F. D. Eatherly became associated with Mr. Moffat, and the firm of Moffat & Eatherly was formed and operated until the death of Mr. Moffat in 1884, when Mr. Eatherly purchased the two-thirds interest of his deceased partner, and continued the use of the same firm name until the sale of the property to the Delta Lumber Company in the spring of 1895, when he retired from active business.

In 1854 Bela Hubbard and John E. King erected a mill containing one six-foot circular, a mulay and a large siding mill, on the Stanton & La Fontaine farm. This mill was burned in 1878 and rebuilt the following year, with a six-foot circular, a mulay, a three-foot circular (siding mill), and a 36-saw gang, cutting 75,000 feet per day, afterward increased by the addition of modern appliances to 125,000 feet per day. This firm discontinued active business in 1890.

At a date which we are unable to obtain, Nathaniel W. Brooks and Francis Adams, forming the firm of Brooks & Adams, bought a mill on the Godfrey farm near Fourteenth street, which had been erected and operated by Porter Kibbee and David Fox. This, as also the Reeves mill mentioned below, ran two mulay

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saws, but at a later date gangs were added. Brooks & Adams also had a circular and gang mill on leased ground on Woodbridge street, between Eighth and Ninth streets, the machinery of which was about 1865 sold to the Jeromes of Saginaw and by them operated on the Saginaw River for many years; each of the three mills of Brooks & Adams cut from six to seven thousand feet yearly, of stock obtained at Port Huron and on the Huron shore. The third mill of this company was built at a date unknown to the historian, by Nathaniel and Selah Reeves, who were afterward joined by their brother Caleb; this mill was located at the foot of Fifteenth street. The mill on Woodbridge street was, as stated, located on leased ground, which by 1865 had become too valuable for saw mill purposes, and was purchased by the Michigan Central railroad from the Woodbridge estate, for depot purposes. In 1869 Brooks & Adams built a circular, mulay and gang mill of 16,000,000 feet capacity at Salzburg (now West Bay City), shipping its product to their yards at Detroit and Jackson; this mill was placed under the management of L. L. Hotchkiss, who later became its proprietor. On the death of Mr. Brooks in September 1872, Mrs. Brooks purchased the Adams interest, including the yards at Detroit and Jackson and the mill at Salzburg. The real estate at Detroit, which had now become too valuable to be used in the lumber business, was divided by auction between the parties, Mrs. Brooks securing the upper half upon which the mills were located, and shortly after the entire property was acquired by the Wabash railroad company.

Henry and Stephen Moore also had a mill on the Loranger farm near the foot of Eighteenth street, of which further mention is made in that portion of this history which relates more particularly to the recollections of A. A. Dwight, Esq.

In 1856 John Copeland, a baker at Detroit, built a hardwood mill, with two mulay saws, at Ecorse, three miles below the Rogue river bridge, to which in 1859 he added a circular saw and combined the manufacture of pine with hardwood, and in the 60's he added a planing mill, for the accommodation of a local trade. In 1867 this mill was purchased by A. M. Salliotte and G. A. Raupp, who remodeled it to two circulars, and made a specialty of long timber and special bills, making an annual cut of from seven to eight million feet. In 1890 Mr. Salliotte formed a partnership with William O. Ferguson, and the firm built a circular mill on the river Rogue, near the bridge, which in 1894 was changed to a band mill, and a planing mill was added. Mr. Copeland, who built the mill at Ecorse, about 1865-6 bought a saw mill at Lapeer, which he ran in connection with his Ecorse business for a few months, operating extensively in hardwoods, his purchase including a large tract of heavily timbered hardwood lands near Lapeer, as well as at Ecorse, together with pine tracts near Lapeer and in Oscoda county. During the war and until the revulsion succeeding the war, Mr. Copeland was a very heavy operator; he died in 1880 at the advanced age of 80 years.

The log supply for the mills at Detroit was for many years obtained exclusively from the Black river at Port Huron, the logs being rafted down the St. Clair and Detroit rivers. With a waning supply from this source, and the development of the country bordering on Saginaw Bay, the forests watered by Rifle river, the Au Gres, the Au Sable and those of the Thunder Bay district were resorted to, while still later the Upper Peninsula, by rafting over the rapids at Ste. St. Marie together with the Georgian Bay district, were drawn upon, the latter locality being at this time the main reliance of the few mills remaining at Detroit, as well as those of Toledo and other Ohio points at which a limited manufacture is still carried on. In earlier days a large quantity of black walnut was manufactured from the excellent timber which was found in considerable quantities in the southeastern part of the State, and in adjoining counties of Canadian territory.

Detroit was also for many years the center of a large square oak timber, and oak stave trade, regarding which it may perhaps be truthfully said, that no individual locality in the northwest boasted a greater extent. The southern portion of Michigan originally contained forests of the finest white oak, with a liberal admixture of rock elm and black walnut, both of which varieties have always been in great request, while that portion of the Canadian province which adjoins the Detroit river and the westerly end of Lake Erie, contained the same varieties of timber in abundant quantites, and of unsurpassed quality. From about 1850 Eldridge Merrick, a native of Clayton, Jefferson county, New York, was the leading timber operator in Detroit. Mr. Merrick in 1821-2 made his first venture with a small raft on the St. Lawrence, operating in that section as a lumberman and vessel builder, until the extinction of the timber supply of that region, when he removed further west, first to Oak Orchard near Rochester, New York, then to Youngstown, N. Y., where he is said to have built the first timber vessel with port hole doors for loading through the vessel's stern or bow; later removing to Lake Erie points, making Detroit his headquarters, but operating principally on the Thames and other smaller Canadian streams, shipping his product to Kingston, Canada, whence it found its way to Montreal and Quebec for shipment to English markets. In 1882 his business was relinquished into the hands of E. E. Kelsey, a former employe, who continues it in a lesser degree to the present time, there being still a considerable quantity of good oak for timber and staves available. Mr. Merrick died in 1888, on the next day after disposing of his last vessel, he having been largely interested for many years in lake craft.

The square timber trade of Canada was largely supplied for many years from Michigan and Canada west, and attained vast proportions. In later years the forests of Lake Superior from Ashland to Duluth have yielded large quantities, while from a practical standpoint, the timber and stave business came to an end about 1886 to 1890. The Lake Superior district for several years preceding the latter date, shipped from fifty to one hundred thousand cubic feet of square timber and fifty to one hundred thousand pipe staves. Muskegon about 1880-1885 shipped about an equal quantity, in feet of timber, including a goodly proportion of rock elm. The Saginaw river from 1860 to 1879 shipped out 75,000,000 cubic feet of oak timber, and 20,000,000 pipe staves. The shipments of square timber from Quebec in the fifty years from 1845 to 1895, including white pine, 621,000,000 feet cubic; red pine, 1,500,000 feet cubic; oak, 11,200,000 feet cubic; elm, 800,000 feet cubic; ash, 12,500,000 feet; birch and tamarac, 8,000,000 feet, will aggregate not far from ten billion feet, to which must be added 164,372,300 Quebec standard, pine deals; 77,102,886 spruce deals and 164,372,300 oak staves (standards).

While this is a digression from a strict connection of the lumber trade of Detroit, it serves to show the importance to the northwest of that element of forestry, which is too often looked upon as a side adjunct to the generally esteemed, more potent factor, pine. When to it is added the vast consumption of hardwoods in economic and manufacturing enterprises, it will be appreciated that the hardwood forests form a more important and valuable adjunct to our forestry wealth than has generally been supposed.

While, as before stated, no records are available showing the production of the mills at Detroit during earlier years, statistics are available as early as 1867 when a manufacture of 39,026,000 feet is reported, followed in 1868 with 48,250,000 feet; 1869, 47,950,000 feet; 1870, 57,350,000 feet; 1871, 53,750,000 feet; 1872, 37,500,000 feet; 1873, 44,138,000 feet; 1874, 43,340,000 feet; 1875, 37,070,535 feet, and from this time no data is accessable. To the 408,374,535 feet enumerated for these years it is safe to add 100 per cent for the thirty years preceding, and for the smaller manufacture of subsequent years, and if the sum total is stated at 1,000,000,000 feet it is hardly over estimated, and in fact is rather less than more than the facts would warrant. The production of the period subsequent to 1875 was of so minor importance as compared with the more extended production of the balance of the State, that the statisticians dropped its individuality and included its restricted production among the minor points, under the general head of "Miscellaneous Mills."

Samuel Pitts.—Prominent mention is made in the chapter relating to the lumber history of Detroit of Samuel Pitts, for many years a manufacturer at that point, and as well at Bay City.

Mr. Pitts was born April 17, 1810, at Fort Preble, one of the defences of the harbor of Portland, Maine, his father, Thomas Pitts, being at that time in command of the fort, holding the rank of Major in the United States Artillery. The family was one of the oldest in the colonies, dating back to the earliest settlement of Boston, its members for several generations having participated in the trials and privations to which not only the earlier settlers, but their descendants were subject, proving in many ways their loyalty to King and Crown, and in no less a degree to the independent nation which was established through the Revolutionary war, and that of 1812, in which latter Major Thomas Pitts took a conspicuous part.

Samuel Pitts was educated in the common schools of the day and graduated at Harvard in 1830, fitting himself for the profession of the law, going west to Detroit in the same year, in which city he followed his profession for about twelve years. With a rapidly increasing population in Detroit and the west, Mr. Pitts became impressed with the growing importance of the lumber possibilities of the country, and in 1842, opened a lumber yard at Detroit for supplying the increasing demand for building material, and about 1845 built a saw mill on the banks of the river, there being at that time only the mill of Buckminster Wight in operation at that point, while the increasing demand for lumber was supplemented by an increasing logging industry on the Black River, which promised ample supplies for such a venture. the Mill erected by Mr. Pitts contained two mulay saws and was calculated to manufacture about 2,000,000 feet per year. The wisdom of the venture was manifest to so great a degree that but a short time after his example was followed by the building of mills by Baughman & Hubbard, Hugh Moffat, Smith & Dwight, Brooks & Adams and H. E. Benson, all of which were of about the same general character as that of Mr. Pitts. All of these mills depended upon the forests of Black river for their log stock for many years during which time their mills received many rebuildings and remodelings, the mulay saws giving place to circulars and gangs and Detroit became a noted center of lumber manufacture. Mr. Pitts is credited with a wise perception of the value of the various improvements in saw mill machinery as they were from time to time introduced, and is said to have been the first to introduce gangs at Detroit if not the first in the State. During the later period of lumber manufacture at Detroit the resources of the Black river having become exhausted, the mills obtained their log stock from the shores of Saginaw Bay, it being brought from that point in rafts towed through Lake Huron.

Baughman & Hubbard having about 1854 undertaken the construction of a mulay and circular mill of 3,000,000 feet annual capacity at Lower Saginaw (Bay City) in which they became financially involved, it was purchased by Mr. Pitts, and by him operated until its destruction by fire in 1873, having undergone repeated changes and additions to its machinery, containing at the time of its burning, one mulay, one circular and a gang, its successor in its immediate rebuilding being of the same character, until in 1893 when the circular was discarded and a band saw substituted.

The business up to 1865 was conducted in the name of Samuel Pitts, but in that year Thomas Cranage, Jr., (son-in-law of Mr. Pitts), and Thomas Pitts, son of Samuel, were admitted to participation, forming the firm of Samuel Pitts & Co., until 1868 when upon the death of our subject, the business was continued by the junior partners under the name of Pitts & Cranage until the retirement of Mr. Cranage in 1893; since which date it has been continued under the title of Pitts & Company.

The mill at Detroit was abandoned about 1875 from about which time Detroit cut but little figure in the lumber production of the state. Mr. Pitts did not confine his energies wholly to the enterprises which have been mentioned, having been interested in the Truesdale mill at St. Clair (elsewhere mentioned), and also with the furnishing of the Hascall mill at Flint where he also introduced the first gang known to that locality (the first gang in the mills at Bay City having been also placed to his credit).

Few men have been held in higher respect in the communities in which their life's activities were spent, than was Samuel Pitts. Courtly in bearing, courteous in demeanor to all with whom he came in contact, the soul of honor in all his business and social relations, Mr. Pitts was by all esteemed an admirable example of the old school gentleman, combined with the business acumen and push of the more progressive age. Without seeking political preferment he held pronounced political views upon all subjects which claimed public attention, and exercised a marked and beneficient influence over all who came in contact with him.

He was married in 1836 to Miss Sarah Merrill of Vassalboro, Maine, and died at Detroit April 26, 1868. He left one son and four daughters.

Thomas Pitts, son of Samuel, and principal successor and manager of the business so long and so successfully carried on, devotes most of his time and attention to the mill at Bay City, but claims Detroit as the place of his residence, and is held in the highest esteem as a worthy successor of an honored sire. All the daughters are married; Julia Pitts married Thomas Cranage of Bay City; Frances Pitts married Colonel Henry M. Duffield of Detroit; Caroline Pitts married Henry B. Brown, for a long time United States District Judge at Detroit, but appointed associate justice of the United States Supreme Court in 1890; Isabella Duffield Pitts married Daniel Goodwin of Chicago. All five of Mr. Pitts' children are part owners and interested in the present lumber and salt business of Pitts & Company at Bay City (1898).

MOFFAT & EATHERLY—Among the older and better known of the manufacturers of lumber at Detroit was the firm of Moffat & Eatherly. Hugh Moffat was a native of Scotland where he was born in 1810, but came to America in 1834, and after a short period of residence at Albany, N. Y., where he was married, and another short period of residence in Toronto, he in 1837 reached Detroit, where he for several years followed his trade of carpenter and builder, and being a man of great activity and push, was for several years reckoned as the leading contractor in the building industry of the city, his last contract being for the building of St. Paul's church in 1851-2. In 1852 he built a saw mill on the river front of the James Compo farm between Dubois & Chene streets, with which he continued in connection until his death in 1884, after which the business was continued by his partner, retaining the former firm name until the final closing of the business in 1895, when the mill property was sold to the Delta Lumber Company. Mr. Moffat served for two terms as mayor of the city of Detroit.

F. D. Eatherly of the firm of Moffat & Eatherly was also a native of Scotland, where he was born in 1833, coming to America when but a youth of 15 or 16 years of age, and at once becoming a resident of Detroit where he was apprenticed to Hugh Moffat in 1850 to learn the trade of carpenter and builder, and assisted in the erection of the Biddle House, St. Paul's church and other prominent buildings. In 1852 Mr. Moffat having commenced the erection of a saw mill, Mr. Eatherly assisted and in the following spring was employed in the office where as clerk, bookkeeper and general manager, he continued until 1870 when a partnership was formed with Mr. Moffat and Moffat & Eatherly became among the most prominent firms engaged in the lumber business of the city. Mr. Eatherly held a one-third interest in the business until the death of Mr. Moffat in 1884, when he purchased the two-third interest of the Moffat estate, and continued the business under the same designation of Moffat & Eatherly until the spring of 1895, when he sold the property to the Delta Lumber Company. This mill, as originally built contained two mulay's and one circular saw, with capacity of from 15,000 to 20,000 feet per day, but on its rebuilding in 1858 a gang was added and with improved appliances added from time to time it eventually rated at 75,000 to 100,000 feet per day. Following the history of this mill to the year 1896 we find a rebuild by the Delta Lumber Company and the use of one band, one circular and gang, with a complete complement of the most modern devices for use in the manufacture of lumber. During nearly the entire period of the manufacture by Moffat & Eatherly log stock was procured from their own timber reserves on the Black river and its tributaries, which they were enabled to partially draw upon, up to the last of their manufacture, and were the last to finally abandon a section which was the earliest (1832) locality in Michigan to invite the attention of lumbermen, and survived much territory which became prominent at a later day. Toward the close of operations the main log stock was towed from Rifle river. Mr. Eatherly has been honored with the confidence of his fellow citizens and now holds the responsible and honorable position of president of the police commission of Detroit.

Hubbard & King.—Among the prominent lumber manufacturers of Detroit for many years was the firm of Hubbard & King, of which Bela Hubbard and John E. King were the members.

Bela Hubbard the senior member was born in Connecticut in 1814, but spent the major portion of his youthful days at Medina county, New York, his father removing to Michigan about the time of the completion of the Erie canal in 1829, his son following a few years later upon the completion of his education at Hamilton college, Clinton, New York, where, after taking a law course in the office of Judge Demial, he came to Detroit and completed his studies in the office of Downer & Walker at Detroit, and was admitted to the bar in 1840. Previous to this time his father, Thomas H. Hubbard, had purchased lands in Michigan, of which Henry G. Hubbard, a brother of Bela, was in charge, and about 1853 Bela deciding to abandon the profession of law, engaged in the real estate business, and having endorsed for some parties who were engaged in the lumber business, who had failed to meet their obligations and turned their business over to him, he decided to engage in that business and in 1855 formed a connection with his brother-in-law, John E. King, and the firm of Hubbard & King was established. Although admitted to the bar, Mr. Hubbard never practiced in the courts, while his education in the profession stood him in good stead during the many years of active business life. Subsequent to the formation of the partnership, the business history of the members was identical, as will later appear. With rare foresight as to the future of the city of his chosen residence, Mr. Hubbard purchased in 1850 a tract of about seventy acres in what was at the time in the country outside of the city, but which is now in the heart of the city, paying what was at the time considered the "enormous" price of one hundred dollars an acre, and in 1855 erected the handsome residence in the heart of the forest, which is yet one of the elegant and comfortable dwellings of the City of the Straits, and in which he still resides. He has for many years been a director in the old established Farmers & Mechanics' Bank, and is regarded not only as a pioneer, but as one of the most highly respected citizens of Detroit, and among the most influential. He has two sons, of whom Henry C. is in the Etymological department of the government at Washington and is the author of some valuable papers upon that subject; the second son, Collins B. is the business manager of his father's handsome estate.

John E. King of this firm was born at Northampton, Massachusetts, in 1818, and in 1833, when but twelve years of age came west to join his elder brothers, who were engaged in the clothing business at Detroit. Availing of the scanty means which at that day were presented for obtaining an education, the boy's time was largely spent for several years in a clerkship with his brothers, and he was thus engaged at the breaking out of the Mexican war in 1847, when he enlisted in the First Infantry regiment of Michigan Volunteers, and went to the front under Col. T. B. W. Stockton, in the army of the gallant General Winfield Scott, remaining until the end of the war, which gave to the United States the vast territory of Texas, and the greater area of transcendent value which comprises at once the pride and glory of the nation, and embraces the entire Pacific coast possessions of the republic. Returning to Detroit in the fall of 1848, he for three or four years re-engaged in the clothing business, and in 1854 became connected with his brother-in-law, Bela Hubbard, in the lumber business, and the firm of Hubbard & King was established, and was among the most enterprising of Detroit's business houses until 1890, when active business was suspended. Like Mr. Hubbard, Mr. King enjoys the confidence and esteem of his fellow citizens to the fullest extent.

The young firm erected a saw mill on the Detroit river, locating at a point which would at the present day be described as on River street, between Fifteenth and Seventeenth streets, and was known as the "La Fontaine Steam Saw Mill." This mill consisted of one mulay saw and one circular, the latter being an unusually large adaptation of the "siding mill," which was so popular in that day, it being adapted to the more rapid sawing of twelve inch cants which had been "sided down" by the principal saws. This mill was destroyed by fire in 1878, and immediately rebuilt, with the addition to the same line of equipment, of a "gang" of thirty-six saws, and the mill thus equipped was rated at a production of 75,000 feet per day, and later by the addition of improvements which about this time were freely offered by inventive genius, for the edging and economical handling of lumber, the daily product reached one hundred and twenty-five thousand feet. This mill remained in commission until 1890, when the firm discontinued the manufacture of lumber and the mill was dismantled. During its operation the log stock was obtained from the Black river, which drained the excellent pine forests of St. Clair, Lapeer and Sanilac counties, until about 1877, when this source of supply failing through the depletion of the forests of that section, supplies were for a few years obtained by rafting from the waters of Saginaw Bay. The operations of the firm covered a period of about thirty years, during which time they contributed in the neighborhood of 200,000,000 feet of lumber to the vast stocks which have been harvested from the unrivaled forests of pine in which Michigan has excelled. The gentlemen are brothers-in-law, having married sisters, and both survive to be numbered among the honored citizens of the beautiful "City of the Straits," which they have done so much toward advancing to its present high state of prosperity and beauty.

During the time of their manufacture of lumber the firm found a market for the mill product largely in the city of Cincinnati, Ohio, as well as in its home market, with a by no means insignificant demand from the east, principally through Albany, N. Y., whither it was shipped via Buffalo and the Erie canal, a trade which in the later years of their operations was largely increased.

Thomas Palmer.—Thomas W. Palmer.—Among the oldest and most prominent names connected with the lumber manufacture of Michigan, is that of Palmer, a name which not only carries us back to the earliest development of the lumber business of the State, but links the present with the past, not only as regards the business in eastern Michigan, but as well to the western part of the State, and other timber producing sections of the northwest, the halls of congress, and other honored connections with the government and development of the nation.

Thomas Palmer, Sen., was a native of Connecticut, where he was born in 1789. He was the son of a farmer residing at Ashford, and at the age of twenty years, imbued with a spirit of adventure, he braved the perils of a journey to the then distant west, and reached Detroit in 1809. He remained west until after the war of 1812, during which he served as a volunteer at Detroit and was taken prisoner at the capture of that city by the British forces. He was held but a short time as prisoner, when he found his way back to his native State. He then engaged in business at Canandaigua, but in 1817 returned to Detroit, adopting Michigan as his future home, and while establishing a mercantile business there, was also engaged in the pursuit of diversified industries, in the building of roads, (but few improvements in that regard having previously been undertaken), and becoming interested in the building of factories, the starting of potteries, and becoming prominently interested in public affairs. He built the State capitol at Detroit in 1823. In 1826 he, in connection with Horace Jerome, erected a water saw mill having a single gate saw, with capacity for sawing from three to four thousand feet per day, on Pine river, in St. Clair county. (This mill is elsewhere mentioned in the general history as the Palmer and Jerome mill of 1826). The cut of this mill was rafted down the St. Clair river to Detroit, at that time the only market for its product, the city having now reached a population of 2,200 souls. In 1830 Mr. Palmer built a steam saw mill on the St. Clair river at Palmer, now St. Clair, which was also a gate mill, with capacity for cutting about 2,000,000 feet per year, and was a large mill for that day and time. It was probably the first steam saw mill in the State, the mill elsewhere mentioned as erected by Messrs. Trowbridge, Brush and others at Detroit not being undertaken until two years later. Mr. Palmer continued to operate this mill until 1842, when he sold it to Wesley Truesdale, who added a siding mill, and ran it for many years. With the sale of this mill, he closed his operations in lumber manufacturing, and engaged in other business. From 1817 he had inaugurated and been connected with more industries of a diversified character, than probably any other man in Detroit, or the State, and was no doubt the best known man in either, being prominent as a merchant, active and alert, and possessing excellent business qualifications. After retiring from the lumber business in 1842, he engaged in the real estate and insurance business, which he carried on until his death in 1868. He took a deep interest in public affairs, and while never seeking office, was at one time an alderman of the city. While at the date on which in connection with Horace Jerome, he built the mill on Pine river, there were a large number of saw mills scattered throughout the southern portion of the State, it may safely be avered that subsequent to the building of the mills elsewhere mentioned as being erected and operated on the Pine and St. Clair rivers in 1779-80 and 1812, which had no doubt gone to decay before 1826, that the mill erected by Messrs. Palmer and Jerome in the latter year, was the first erected for the exclusive manufacture of pine lumber in the State. The mills at Pontiac, Waterford and other points in Oakland county had been operated almost wholly in the hardwoods of that section, with the small amount of pine discovered by Major Oliver Williams in 1818, which was soon exhausted.

Mr. Palmer was a sturdy New Englander possessed of all the native talent of the thrifty citizens of the Nutmeg State. He was the father of Hon. Thomas W. Palmer, a sketch of whom we give below.

Hon. Thomas W. Palmer, son of Thomas Palmer, was born at Detroit January 25th, 1830, and grew up with the city, of which he later became one of the leading and most prominent citizens. After attending the public schools he, in 1849, graduated at the Michigan university. He had two years previously, in 1847, on account of ill health, made a trip to Spain and the Continent, returning by the way of South America and the Southern States. This contact with the world did much to broaden his mind to a perception of a world much enlarged beyond the horizon of his native State, and no doubt paved the way to that broad and cosmopolitan character which has distinguished his later life. Soon after his graduation he accepted the agency of a transportation company, and was for some time a resident of Green Bay, Wisconsin. Later he carried on a mercantile business at Appleton in that State, when having the misfortune to be burned out and financially ruined, he returned to Detroit and became connected with his father in the real estate and insurance business, which included extensive dealing in pine lands which by this time were attracting much attention.

In 1855 he was married to a daughter of Charles Merrill of Detroit, and became connected with the firm of Charles Merrill & Co. in the saw mill spoken of above, situated opposite East Saginaw. On the site of this mill a new one suited to the modern requirements for expeditious and economical manufacture, has been erected and is accounted among the most perfect mills of the State, with a cut of from 22,000,000 to 30,000,000 feet of lumber annually. The company owned large tracts of pine land upon all the tributaries of the Saginaw river, including the Cass, Chippewa, Pine and Tittabawasse, from which sections the firm has cut the timber from 70,000 acres and have remaining a quantity estimated at from 60,000,000 to 75,000,000 feet of standing timber. About 1863 Messrs. Merrill & Palmer began an operation at Muskegon, and with a mill located upon Muskegon Lake cut from 5,000,000 to 6,000,000 feet per year, which found market at Chicago. In 1883 this plant was sold to the Montgomery & McGrath Lumber Co.

Up to a comparatively recent date the cut of the mills of Michigan was wholly handled by means of water transportation, including vessels, canal boats and rafting. With the building of railroads into all sections of the country, enabling shipments direct to the yards of the retailer, the trade since about 1880 has undergone a revolution in this respect, and for several years past Charles Merrill & Co. have enjoyed a large car trade with all parts of the country, shipping direct to the country dealer. They have wisely provided for the future in the acquisition of a tract of timber land estimated to cut 100,000,000 feet, located on the Rainy river of Manitoba, which is constantly increasing in value as the timber of the older sections grows scarcer.

Mr. Palmer has been in the lake marine, being now part owner of the steam barge Thomas W. Palmer and William Livingstone. Besides his large real estate business, he is owner of the Detroit Journal, one of the leading newspapers of the State, and is largely interested in several of the leading banks of Detroit.

Included in his real estate holdings which are extensive, may be named the celebrated "Log Cabin" farm in Greenfield, two miles from Detroit. Mr. Palmer has been better known to the world at large through matters not connected with the lumber trade. He was elected to represent the State of Michigan in the Senate of the nation, from 1883 to 1889, having previously in 1878 been a member of the State Senate. On the expiration of his term as United States Senator, he declined a re-election, and was soon after appointed by President Harrison, and confirmed by the Senate as Minister to the Court of Spain, but resigned in 1890, and returned to his home at Detroit, prefering the life of a private citizen of the United States, to the glare of courtly life. In June 1890 he was appointed by President Harrison as one of the commissioners at large of the World's Columbian Exposition to be held in Chicago in 1893, and was unanimously elected to the presidency of that body, developing a phenomenal fitness for the execution of the various and exacting duties devolving upon him in that capacity. There is something in the atmosphere of the pine forests, and it extends to the lumber yard, which broadens a man's perceptions, and gives him heart and prestige above his fellows, and this has been fully illustrated in the life and experience of Thomas W. Palmer.

David Ward.—If there be any one name better known than another throughout the State of Michigan, or for that matter, the nation, in connection with its forestry interests, it is that of David Ward, the acknowledged "Timber King."

Mr. Ward was a native of Keene, Essex county, New York, where he was born in 1822, his father, Nathan Ward, being a leading land surveyor, and agent for Peter Smith, (father of Gerritt Smith), a large land owner in the State of New York, his holdings extending throughout the northeastern portion of the state, including the Champlain and St. Lawrence districts. Mr. Ward was frequently accompanied by his young son David, in the capacity of chain bearer, axe man and companion, he being made of sterner metal than boys of his age in these days. In 1836 Mr. Ward moved with his family to Michigan, largely in view of examining and locating pine timber lands, locating in St. Clair county, at what is now Marine City, then known as Newport. The first summer was spent mostly in looking lands for Mr. Smith, and David, now about fourteen years of age, accompanied his father in the search, on Black river, Elk creek, and the head waters of the Flint, where, with other tracts, they located on Elk creek, the tract which has since been known as the "Pack" tract, sold by Gerritt Smith at an early day to the father of Green, George W. and Albert Pack (Alpena and Cleveland), which laid the foundation of the wealth attributed to that family, through purchase and operations in pine timber, and this tract in particular.

Mr. Ward, Sen., was for some years county surveyor of St. Clair county, in addition to his private business. He died in 1861 at the age of eighty-three years, the latter part of which was spent upon a farm at Keene, N. Y., whence he came a quarter century before. David was past thirteen years of age when he came with his parents to Michigan, where he assisted his father in land exploring and surveying, and continued in that employment largely for many years after his father gave it up. He taught school for several winters, receiving the munificent salary of ten dollars a month at first, but subsequently obtained as high as twenty dollars, and felt that he was cheating his patrons, in accepting so large compensation, considering his capacity.

In 1851 he graduated in medicine at the University of Michigan, but continued school teaching for several winters, having among his scholars some who have since been numbered among the eminent men of the state, including Hon. Henry Howard, Mayor Greenwood of Detroit, Major Boynington, Captain Lester, Perry Hannah and other noted lumbermen. When about twenty-two years of age young Ward largely relinquished all other occupations for that of surveying, and pine land exploration, and soon attracted the attention of such men as Francis Palms, Charles Merrill, Joseph Campau, William A. Howard, the Rusts, and the officials of the Michigan Central railroad, with others who availed themselves of what they recognized as expert talent, and he was employed by them in locating pine lands in the lake and river regions of Michigan, with some in Wisconsin, he, for about ten years, receiving what he considered ample compensation, and for some ten or fifteen years he traversed those states to an extent which probably gave him a better knowledge of their timber resources than was possessed by any other man. He after a time arranged so that his compensation for locating a tract of timber land was one-quarter of the location, and in the division his share was considerable, and his expert knowledge of timber enabled him to make selections for his patrons as well as himself in the most valuable localities. After about twelve years largely spent in enriching others and thereby prospering himself, he concluded to confine his researches to his own advantage, and in 1857 began lumbering on Pine river, a southern branch of the Tittabawasse, going into the woods with three ox teams and but little cash, his money being invested in pine lands, and before the winter was over had banked about seventeen hundred thousand feet of "Cork" pine logs, averaging two logs to the thousand feet, which he sold to Thomas M. Avery and Samuel Yawkey of Saginaw and Chicago. In 1862-3 Mr. Ward made money rapidly in the sale of Cork pine lumber cut from the Chippewa and Tobacco rivers, Cork pine being the cream of the lumber business. Mr. Ward's locations of timber land extended over the Black river and its tributaries; the Tittabawasse and its tributaries, the Pine, Tobacco and Chippewa, and the Cass and Flint rivers, as also the Au Sable, and Cheboygan rivers, and on the west side of the State on White river, with extensive locations of pine and other timber on the headwaters of the Manistee and other streams, with selections on the streams of the Upper Peninsula, and as well upon the Chippewa and Wisconsin rivers of Wisconsin. So long ago as 1850 he made extensive examination of the timber of the Georgian Bay region of Canada, of the Adirondacs, and other sections of the State of New York, but was not impressed with their quality and extent as compared with that of Michigan or Wisconsin. His Manistee river selections embrace more or less of sixteen townships, and at this time comprises the largest body of pine timber now remaining uncut in the State, being estimated at about 600,000,000 feet. While engaged in the accumulation of pine timber lands, and as late as 1857, Mr. Ward became the

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laughing stock of some of the main operators at Saginaw, who thought him decidedly foolish—crazy—in securing so much timber, which could not possibly become of any value during his life time or that of his children. In less than thirty years after, the same critics denominated him a "Hog," for securing so much timber, while they had little or none. Upon the building of the Grand Rapids & Indiana railroad and the Michigan Central's northern extension, Mr. Ward induced their construction through or near his large body of lands which were somewhat distant from floatable streams, and which by the more modern method of railroad logging were made fully as available as the locations which had previously been considered the best. His principal holdings at present are in the counties of Otsego, Kalkaska, Crawford, Antrim, Charlevoix, and Montmorenci, in which he holds 30,000 acres of pine and 100,000 acres of hardwood lands, the latter giving greater promise of value in the future than in the past. He has recently constructed a standard guage railroad fifty miles in length, with between fifty and sixty miles of branches extending into his timber, all of which is located upon his own lands. It is known as the Frederick & Charlevoix railroad, and extends from Frederick, on the Michigan Central, northwesterly twenty-five miles, crossing the G. R. & I. road at Alba, and continuing down the valley of the Jordan river to East Jordan, at the head of the south arm of Pine Lake, which connects with Lake Michigan at Charlevoix harbor, which is navigable for the largest lake craft, thus obtaining shipping facilities for his 1,200,000,000 feet of timber, and immense resources of bark, telegraph and telephone poles, charcoal and various other products of the forest, without being subject to the rapacity or inordinate freight charges of other railroads should such a disposition be manifest. Mr. Ward is without doubt the largest individual stumpage owner in the country as he had been prior to 1893, probably the largest individual operator in logs and lumber, his log sales for sixteen years prior to that date averaging $200,000 per year. His investments of late in railroads, built mainly for expediting his future logging operations, have cost him $700,000, and his timber resources in lower Michigan at a time when most of the manufacturers have been compelled to call a halt for want of timber, are good for thirty years to come. His railroad is laid with sixty pound steel rails upon a solid road bed, in anticipation of the future rather than present demands upon it. He has large bodies of valuable hardwood timber in other portions of the State of Michigan. About twenty-five years ago he made a careful examination of the timber resources of Texas and other portions of the South, but did not fall in love with them, he also visited the Pacific coast and examined the timber resources of California, Oregon and Washington, and decided that Michigan, Wisconsin and the more northerly of the Southern states were more desirable, and after three years personal examination of the oak and poplar forests of Virginia, West Virginia, Tennessee, North Carolina, Missouri and Arkansas, he made large investments in those states principally in West Virginia and Tennessee. A few years later he purchased large tracts of valuable coal lands on the Kanawha and New rivers of West Virginia, securing 20,000 acres located from twenty to thirty miles about Charleston through which the lines of two competing railroads are connected by a road of six miles in length built by Mr. Ward, which with a frontage upon the navigable waters of the Kanawha gives him competing outlets for the coal which lies in veins of as high as thirty and forty feet throughout the tract, for a distance of ten miles. This coal is mined by drift, and not by shaft and embraces one solid body of 10,000 acres.

Mr. Ward was married in 1850 to Miss Elizabeth Perkins of Richmond, Michigan, and has three sons and three daughters, Henry C., Charles W. and William; Flora, wife of Frederick Fay, of Auburn, N. Y. Nellie, wife of —— Palous of New York City, and Pearl, wife of George Root of Detroit, in which city Mr. Ward resides during the winter, spending his summers at his residence at Orchard Lake four miles from Pontiac, Michigan.

Gen. Russel A. Alger.—In no other country would it be possible truthfully to sketch a man's life history as commencing in the poverty typified by a small log cabin in the wilderness, and reaching to the Governorship of a great State and to membership in the President's Cabinet, or as leading from the logging shanty to the control of a nation's army. Yet such would be an epitome of the career of General Russel A. Alger, the present Secretary of War, and as such a member of President McKinley's Cabinet.

Gen. Alger was born in the township of Lafayette, Medina county, Ohio, February 27, 1836, his parents being Russel and Caroline (Moulton) Alger, farmers in the then comparatively wilderness of Ohio. Both parents were descended from a long line of English and Scotch ancestry, representatives of whom had reached this country at a very early day, the immediate ancestors of the General having so early as the year 1800 become residents of what is now known as the State of Ohio. That the family was poor in this world's goods is evident from the fact that a life in the wilderness where that life was menaced daily by wild beasts, and equally wild savages, was not sought to any great extent by those whose wealth permitted the comforts to be found in older settlements, and was only to be endured by those whose optimistic view of the future saw great possibilities arising out of present hardship and discomfort.

Gen. Alger's boyhood was spent in a log shanty in the midst of a small clearing in the woods, and his parents being semi-invalids for many years, the boy from an early age found it needful to assist in procuring the necessaries of life. It is not to his discredit that in their extreme poverty, the boy Russell worked for the neighbors at times, for the meager compensation of a few tea cups full of flour per day, and that this with the milk from a single cow, at one time was the sole reliance of the family. At one time during the illness of both parents, his work secured the compensation of a bag of corn, which although but a boy of ten or eleven years of age, he carried on his back to a mill nine miles distant, and exchanged it for meal to keep the family in food. His parents died when he was but twelve years old, leaving him with a younger brother and sister to succor and care for, so far as he was able.

Soon after the death of his parents, placing his younger charges in homes where they would be cared for, Russell worked for his board and clothing, and three months schooling per year in the country school, until at the age of fourteen, he in 1850, began working for himself. His first contract was for six months, for which he was to receive $3 the first month, $4 for the second, and $5 per month for the balance, and out of these scanty earnings as a farm hand, he contributed to the needs of his brother and sister, whom he placed in families where their limited labors were accepted for their board.

In 1851 he earned $6 per month, in 1852 $8, in 1853 $10, and in 1855-6 $15, and now at twenty years of age he had attained such value as a farm hand that he commanded $20 per month, the highest wages paid for farm hands in that region. Let the young man of the present day who cannot make ends meet on $25 or even $50 per month, learn a lesson from one, who, from the meagre wages described above, has advanced himself not only in wealth, but to a position of national prominence. It was Russell Alger's boast that he could cut thirty acres of grass with the scythe, in one season, and in this he found greater cause for self-congratulation than he could have done as a champion of a base-ball nine, or the rustler of a foot ball team.

From 1850 to 1857 he, while working for wages, managed to attend the fall and winter term of school at the Richfield Academy, sometimes working for his board and clothing and sawing wood at noon hours at from two to three shillings per cord. During the years 1856-7 he taught school, his diligence in seeking an education, not only qualifying him to this end, but fitting him in the latter year to enter the law office of Wolcott & Upson of Akron, Ohio, for the study of a profession, and after two years to pass such satisfactory examination as secured his admission to the bar, by the Supreme Court of Ohio. He was for a time afterward in the law office of Otis & Coffinberry of Cleveland, but never practiced at the bar.

It is not the intent of this work to enlarge upon any points of individual experience, which are not nearly related to lumber history, but the remarkable and instructive history of this prominent lumberman, has seemed to warrant reference to his earlier career.

In 1860 Mr. Alger removed to Grand Rapids, Mich., and in connection with Calvin Goddard, engaged in the lumber business, and had but fairly got started when the tocsin of war was sounded, and added to the troublous times in 1857 from which the country was but slowly recovering, his business venture proved a failure, sweeping away the finances of the young firm, and leaving them somewhat in debt.

In August, 1861, Mr. Alger enlisted as a private soldier in the Second Michigan Cavalry, and when on September 2d the regiment was mustered into service, he was commissioned as Captain, and served in the army until near the close of the war, taking part in many engagements. It were out of place to follow the young soldier through all the experiences of those fateful days, suffice it, that he was wounded and taken prisoner at Booneville, Miss., July 1, 1862; commissioned lieutenant colonel Sixth Michigan cavalry February 28, 1863; wounded in action at Boonesboro, Md., July 8, 1863; resigned September 20, 1864, and honorably discharged; brevet brigadier general U. S. Volunteers for gallant and meritorious services to rank from the battle of Trevillian Station, Va., June 11, 1864; brevet major-general U. S. Volunteers July 11, 1865, for gallant and meritorious services during the war.

At the close of the war General Alger removed to Detroit, Mich., with broken health and without a dollar of means with which to go into business, but with a plentiful supply of that best capital a young man can possess, push and determination. He soon after, however, entered into partnership with Stephen and Franklin Moore (elsewhere frequently mentioned) and engaged in the purchase and sale of pine lands and long timber under the name of Moore, Alger & Co., which a few years later was changed to Moore & Alger, and on the retirement of Mr. Moore, it became R. A. Alger & Co. In 1874, a corporation was formed under the name of Alger, Smith & Co., of which Gen. Alger was president and the principal stockholder, the other more prominent parties in interest being —— Smith and R. K. Hawley, with the associates of the latter in the Cleveland Saw Mill & Lumber Company of Cleveland, Ohio.

In the earlier inception of his lumber enterprises in 1867 Gen. Alger operated in a small way on the Au Sable River in Iosco county, his first winter's operation embracing about one and a quarter million feet of timber. In this operation he was accompanied to his camps by his wife and child, himself managing the camps in the banking of long timber on the lake shore, with but one dray at first, afterwards adding the logging sleigh and other conveniences. The logs got out in this limited operation, were sold at the banking ground to Brooks & Adams of Detroit, and with the proceeds, the General was enabled to increase his operations of the following year, delivering his logs by raft to purchasers at Toledo and Cleveland, thus laying the foundation for his future largely extended operations, which were continued for several years upon the Au Sable river, where with his subsequent associates he acquired ten or twelve thousand acres of timber lands from which some 70,000,000 feet of logs were taken.

The operations of the company after the incorporation mentioned above, were extended to Alcona county, where the company built the first logging railroad in this section, laying a twenty pound rail and operating with horses, but later equipping with a logging locomotive. In this section the Company continued to operate until about 1895, the gross production from nearly 80,000 acres, reaching fully 1,000,000,000 feet of timber, principally in long lengths, which found market at the mills at Port Huron, Detroit, Toledo, Buffalo and Tonawanda. To facilitate the extensive operations, the railroad was extended from time to time until it reached the more distant portions of their lands, its lake terminus being at Harrisville.

About 1880 the Company began operations at Black river, where they built a saw mill of about 30,000,000 feet yearly capacity, building a railroad into the timber, making over one hundred miles of road in connection with their logging operations. In addition to the Black river mill, the company operated a mill of 10,000,000 feet yearly capacity at Ossineke, and in connection with their vast business, which was principally in long timber, operated the barges Valentine and Greenburg, with the tugs Torrent and Weston, for the carriage of lumber, and the rafting of logs on the lakes, the magnitude of which latter branch of the business is evident in the investment of more than $50,000 in chain and other rafting paraphernalia. The yearly output of logs and lumber by this mammoth company may be stated at no less than 140,000,000 feet per year.

General Alger is also a stockholder and president of the Manistique Lumber Co., operating at Grand Marais on Lake Superior, where the company has a mill of 40,000,000 feet annual capacity, with a tract of 70,000 acres of well timbered land for its supply, and the corporation of Alger, Smith & Co. also have large interests and maintain a mill of 30,000,000 feet yearly capacity at the mouth of the Serpent river in Georgian Bay (Dominion of Canada).

But the operations of Gen. Alger are not confined to the great lakes, he being an extensive holder of red wood lands in Mendocino county, California, and in connection with Mr. Smith, having large interests in the rich timber lands of the Puget Sound on the Pacific Coast, as well as in large tracts of timber in various other sections of the country.

The foregoing is but a brief recital and condensed general statement of the connection of General Alger with the great industry of which this history is designed to treat, but it is a striking illustration of the energy of the man who from a childhood of poverty has advanced to a position of the highest influence, not only as a lumberman, but in the political affairs of the State of Michigan in which for many years he has taken a deep interest, and in the control of which he has been a leading factor. The energy of his youth and his indomitable perseverence amid obstacles which would have daunted the will of a majority of men; in his determination to obtain an education: his patriotism in the endeavor to save his country from disruption; his gallant conduct on many a hard fought battlefield; his courageous battle with poverty which confronted him on his return, penniless in pocket, and with broken health, to take up the life of a logger in the woods; his abundant success in business, and his great influence in molding the destinies of his country as a prominent member of the Republican party; his election in 1884 to the exalted position of Governor of the great State of whose interests he had for many years been an earnest and intelligent exponent, found National expression when in 1888 he narrowly escaped the honor of being the Republican nominee for the Presidency of the Nation, while a fitting climax has been found in his selection in the winter of 1897 by President McKinley, as one of his Cabinet advisers, since which he has filled the responsible position of Secretary of War, with honor to himself and with credit to the great Nation which he at this time represents in one of its most important branches.

Gen. Alger was married April 2, 1861, to Miss Annette Henry of Grand Rapids, Mich., and has found in her a worthy helpmate in his struggles against poverty, and no less an honor to the exalted positions which are the well merited supplement of an arduous and successful combat with adversity, and elevation to so high a position in the admiration of a State and Nation. To the youth of our land the life history and success of General Alger and his no less esteemed and honored wife, should prove an example worthy of deep study and sincere emulation.

Since the above was written, the nation has watched with the deepest interest the prominent part played by General Alger as Secretary of War, in the opening campaign of the Spanish-Cuban conflict, of which future historians will find abundant material for a supplement to this brief sketch of one who at this writing is adding most satisfactorily to the Nation, to his reputation gained on the field of battle in the civil conflict, and is now guiding our armies to deeds of bravery and honor in our contest with the armies of Spain.

Royal C. Remick.—Among the older and more prominent lumbermen of Michigan, was Royal C. Remick. He was a native of Cornish, York county, Maine, where he was born in 1812. At the age of ten years he left the parental roof and went to live with a distant relative who was a farmer and lumberman on the Saco river. During his residence with him, which continued until the young man reached his majority, he became familiar with lumbering operations and on becoming of age he left with one hundred dollars in his pocket and a "freedom suit" and made his way to that Mecca of lumbermen, the Penobscot river, where he for some years was employed by the State as an agent to look after certain timber limits, it at that time being the custom to sell stumpage to operators, the amount being determined by scale. Afterward he became interested in lumbering on that river on his own account and continued there until 1851 in which year he turned his face westward in search of lands and located a tract on the White river on the west coast of Michigan, which he subsequently disposed of to Eddy Avery & Co., then of Bangor, Maine, but later numbered among the most extensive and successful lumbermen of the Saginaw valley. In 1852 he entered several large tracts in connection with eastern parties and in 1853 purchased a large tract in connection with Charles Merrill, which was for some years operated on joint account. These lands were located on the Cass river, a stream unexcelled for the excellent quality of its timber, which was for many years the standard of comparison upon which the quality of timber in all sections of the State was judged. During the period 1853 to 1859 Mr. Remick operated upon the Tobacco and other streams tributary to the Tittabawasse river. In 1857 Mr. Remick purchased the Merrill interests and continued operations upon the Cass river tract to as late as 1866, when he disposed of the residue to Avery & Murphy and in 1869 became interested with David Whitney Jr. in the purchase of lands and in lumbering on streams tributary to the Saginaw waters, a connection which continued until the death of Mr. Remick in the spring of 1878. The operations of the firm were largely on Pine river, a tributary of the Chippewa, and upon the Chippewa and Tobacco rivers, and from about 1872 were largely by rail, they having in that year entered into an experimental contract with the Flint & Pere Marquette Railroad Co. for the conveyance of 30,000,000 feet of logs over that line of road, for which they agreed to pay a freightage of three dollars per thousand feet log scale. This was the first railroad logging which had as yet been undertaken, and eventuated in the establishment of this method of log transportation upon all the roads leading into the forests, and later in the building of railroads for logging purposes into all those sections where the timber had become too remote from streams to make team hauling profitable. The firm handled fully 200,000,000 feet of logs over the F. & P. M. road, which were dumped into the Saginaw river between Bay City, Saginaw and in the Tittabawasse river above Midland whence they were rafted to the mills of the river. The advantages of this system of transportation were manifest in the avoidance of the long delays incident to river driving, and no less in the avoidance of the large percentage of loss by shrinkage on account of detention by reason of low water, etc. The timber holdings of the firm included many valuable selections from the land grant of the Sault Ste. Marie canal in the lower peninsula, and lands on the Maple river of Antrim county, later sold to Dexter Noble of Elk Rapids. These last mentioned lands were rich in valuable timber, but at the period named logging railroads not having as yet been established, the timber was necessarily handled by teams for a distance of ten or twelve miles, at an expense which none but first-class timber would warrant.

After the death of Mr. Remick in 1878 the partnership connection was continued by the estate, represented by Mr. James A. Remick, a son of the subject of this sketch, until 1893, when its operations came to an end. Mr. James A. Remick was a native of Maine, removing to Michigan with his parents when but about ten years of age. At the age of eighteen he began work in the woods in connection with his father's operations, and continued the business in behalf of the estate after his father's decease, so that the operations of Whitney & Remick were continuous from 1858 to 1893. The operations included lumbering upon the Pine, Chippewa, Tobacco, Tittabawasse, Cass and other streams of the State, and from 1869 included manufacture at their own and other mills on the Saginaw river. James A. Remick individually has also been an extensive operator on the Tobacco, Chippewa and Flat rivers of Saginaw waters, and also upon the Manistee river on the west side of the State. About 1879 the old firm under the management of James A. Remick, built and operated a logging railroad six miles in length in Isabella county, over which fully one hundred million feet of logs were watered in the Pine river and floated to the mills at Saginaw. It is difficult to estimate the aggregate business of the Whitney & Remick operations, but it is safe to place the aggregate results of the twenty-four years' continuance at from 400,000,000 to 500,000,000 feet of logs, which from the excellent and practical judgment of the members of the firm in selecting their lands, may safely be asserted as being as a whole among "the cream" of the log stock of the State. Including the operations of Mr. Remick in connection with the Merrills, fully another 100,000,000 feet may be safely added to the aggregate above stated and from these figures may be gathered the magnitude of the operations of many of the leading lumber operators of the State of Michigan during the forty years between 1850 and 1890.

The Yawkey Family.—The name of Yawkey has for more than half a century been a prominent one in the lumber circles of the west, where it has been the synonym of enterprise, thrift, reliability and success. William C. Yawkey, the principal subject of this sketch, was a son of John Hoover Yawkey, whose ancestors left Germany in the days of William Penn and settled at Germantown, now a part of the city of Philadelphia. It was at this place that John Hoover Yawkey was born May 12, 1806, the son of George Yawkey, a lineal descendant of the original emigre. While John was but an infant, his parents removed to Seneca Lake, New York, settling near Waterloo, where the father followed farming for a number of years, removing in 1818 to Ohio, settling on a farm near Dalton in Wayne county, thus becoming a pioneer in the settlement of that rich State. The journey from New York State was made by wagon, drawn by cattle, over rough trails rather than roads, of which the new country could boast but few. The household goods and children occupied the wagons, the elders driving the stock, and John, now twelve years of age, sturdy and strong, proved his usefulness in the valuable assistance which he could render his parents during this tedious and toilsome journey. Growing to manhood upon the Ohio farm, availing himself of the limited facilities for schooling, he appreciated the advantages of education to an extent which led him to strenuous efforts to educate himself, efforts which were not abated when he reached the years of manhood. In 1828 he married Miss Lydia Clyman, a native of Virginia, and daughter of Philip and Hazel Clyman, who had some years previous settled (about 1813) upon land adjoining that on which Massillon was located. At an early day he obtained a clerkship in a general store at Massillon, Ohio, and afterwards was thus occupied in connection with the purchase and shipping of wheat and other produce until 1836, in which year in company with a man named Wellman, he operated a water saw mill at Millport, not far distant from Massillon on the Ohio canal, cutting the hardwoods of the vicinity to the extent demanded by a sparse but rapidly increasing population. In 1839 in company with Wellman he became concerned in a grist mill also at Millport, of which he took charge and operated it for the next ten years. In 1836 he moved his family to Millport but in 1842 he returned to Massillon where he continued to reside until 1852, when he moved to Flint, Michigan. Mrs. Yawkey was born January 23, 1807, and died at Detroit March 9, 1888, at the ripe age of 81 years.

In 1848 Mr. Yawkey started a retail lumber yard at Massillon, doing business under the designation of John H. Yawkey & Co., his old partner, Mr. Wellman, being the "Co." and the yard soon ranked among the largest in the State of Ohio, doing a business of one and a half million feet per year, which at that day was a large business for an interior country yard. In 1852 Mr. Yawkey, who had previously visited Michigan for the purchase of lumber for his yard, decided to remove to and settle in that State, and disposing of his Ohio property, he purchased the "Kearsley Mills" three miles up the river from Flint, elsewhere mentioned as having been erected in 1835, and operated by Ira Potter after 1836. The mill was of the ordinary gate pattern, but was subsequently remodeled to a circular mill. For a number of years Mr. Yawkey operated this mill with the aid of his sons, of whom William C. became a partner in the business and had charge of the mill. The timber of the Flint river bore a reputation hardly second to that of any stream in the State of Michigan, and the firm for several years handled large amounts of its timber, both in the log and in manufactured lumber. They purchased some large tracts of pine land, the product of which were rafted to the Saginaw river, the only available market at that time. In 1859 Mr. Yawkey removed to Saginaw and continued the lumber business in connection with his son William C., a connection which, with little intermission, continued until about 1870, subsequent to which time through the infirmities of age, he in a goodly degree remitted the activities of a long, honorable and useful life. For many years he had resided at Bay City where he was universally known and respected, and it was in 1889 upon a visit to his daughter-in-law, the widow of his son Samuel W., at East Saginaw, that he was taken sick and died, his remains being taken to his old home at Massillon, Ohio, for interment. He was in his religious faith an Episcopalian, and was an honored member of the fraternity of I. O. O. F. He has three sons, Samuel W., born at Massillon April 22, 1830; Edwin F., born June 27, 1837, and William C., born August 26, 1834.

The ancestors on Mr. Yawkey's side were quite numerous, having settled in Pennsylvania at an early day and participated and took part in the Revolutionary war and war of 1812. Lydia Clyman's ancestors came from England at an early day and settled in Westmoreland county, Virginia. They afterwards resided near Westminster, Virginia, and from there they moved to Ohio. Many of them also participated and took part in the Revolutionary war, and war of 1812, and several of the brothers were pioneers in the west. James and John Clyman were prominently identified with the first settlement in Wisconsin and were prominent men in the Black Hawk war and several of the wars that originated out of the settlement of the northwest. They went with one of the earliest expeditions to the Pacific coast sent by the United States government.

William C. Yawkey, second son of John H. and Lydia Clyman Yawkey was born at Massillon, Ohio, August 26, 1834, and was afforded all the advantages of a private school education, supplemented by earnest study at night up to and subsequent to attaining the age of fourteen years, when he engaged as clerk in a hardware store in his native place, at a salary of six dollars per month, afterwards becoming a clerk in his father's office where he soon mastered the details of the lumber business. He remained with his father until 1851 when he moved to Flint, Genesee county, Michigan, (his father afterwards moving his family to Michigan in 1852) when he was taken into partnership in the saw mill operation near Flint, having charge of the mill and manufacture of lumber for the ensuing three years, and in 1855 went to the Saginaw valley and located at Lower Saginaw (as Bay City was at that time known) in connection with his brother Samuel, who had located at East Saginaw some time before, and who had charge and looked after the business at this point and that part pertaining to the upper Saginaw river, while he, (William C.), had charge and looked after the business at Lower Saginaw and in the vicinity thereto, and in 1856, after the firm of S. W. Yawkey & Co. had been formed by his brother and others he became a clerk for this firm and was one of their principal inspectors and shippers of lumber and continued with this firm during its existence. In 1857 he became one of the firm of C. Moulthrop & Co., and continued in said firm having charge of their main office at East Saginaw, Michigan, until 1859. In 1859 he started an independent business, taking the agency of a leading Chicago firm in the purchase of logs and lumber, while retaining the business of many of the customers of the former partnership, and at the same time, with that great energy and skill which has been one of the chief characteristics of his business career, formed one of the most noted and popular commission and inspection houses in the Saginaw valley, its clientage including the leading lumber firms of Albany and the east, as well as of Chicago and other western markets. For several years he operated most successfully under his individual name until it became the largest business of its kind in the valley. About the year 1863 he formed the firm of W. C. Yawkey & Co. with his father and brother Edwin as partners, his business having increased and become so large, owing to his having in the meantime entered into the purchase of pine lands and becoming engaged in the cutting of logs and their manufacture into lumber, as to need the assistance of others in the operation of his commission business. About the year 1865 his brother Samuel was admitted into the firm.

Having worked his way from the beginning to a well merited success, through energy and close application to the business in which he was accounted an adept, his operations were from time to time extended to include not only logs, lumber, shingles and lath, but also pine lands, not only for others but as well for himself, and he held the enviable reputation in each department of being one of the best inspectors and judges of lumber and standing timber in the state. The operations of this combination included from 25,000,000 feet to as high as 75,000,000 feet per season, exceeding in its volume the combined business of all other firms in the valley in the same line of business. With rare foresight Mr. Yawkey, as his means increased, invested in pine lands, and soon accumulated a vast tract including some of the best lands upon the streams tributary to the Saginaw river, including the Cass, Bad, Rifle and other rivers noted for the excellent quality of their timber resources. From 1864 his operations in cutting and dealing in logs and in the manufacture of lumber were largely extended, while he at the same time was an extensive purchaser of the cut of other manufacturers. Subsequent to 1868 he was associated with others in some of the largest pine land purchases which were consummated in the State. Up to about 1880 his operations were largely confined to the Saginaw valley region, but subsequent to that time his dealings have extended to a much enlarged territory. In 1878 he removed his residence from Bay City to Detroit, from which point he has since managed his rapidly extending business which has included several hundred thousand acres of timber lands in the states of Michigan, Wisconsin, Minnesota, Alabama, Florida and other southern states, owning at this time no less than 150,000 acres in his individual right, together with no less than 400,000,000 feet of standing timber in Minnesota and the south, much of which was patented from the government. In 1888 Mr. Yawkey formed the Yawkey & Lee Lumber Co. Limited, with headquarters at Hazelhurst, Wisconsin, where the company had saw mills with capacity for the manufacture of 20,000,000 feet of lumber per season. Of this company Mr. Yawkey was the president.

In 1893 the firm of Yawkey & Lee Lumber Co. Limited, was dissolved, and the firm of Yawkey Lumber Co., composed of W. C. Yawkey, president; Cyrus C. Yawkey, treasurer and manager and William H. Yawkey, secretary, was incorporated, they having purchased the effects of the Yawkey & Lee Lumber Company Limited, and at the same time also purchased of W. C. Yawkey about three hundred million more feet of standing timber which he had in Wisconsin and are now manufacturing the same at Hazlehurst. Their mill is equipped with the latest improvements and appliances including a band saw, and has a planing mill, including a box factory, for the more speedy preparation of the stock for market, and is located upon the line of the Chicago & Milwaukee railroad, while a short line built by and belonging to the company, and known as the "Hazlehurst & Southeastern railroad" also connects with the Chicago & Northwestern railroad at Hazlehurst Junction, and extending into the timber, affords ample facilities for logging operations at all seasons of the year also giving great facilities for the shipment of the manufactured product as fast as sold. About two-thirds of the mill product passes through the planing mill and box factory and is shipped in carload lots to all sections of the country. Among some of the more valuable holdings of Mr. Yawkey in Minnesota are included mineral lands in the Mesaba range, the iron from which has a deservedly high reputation, and includes the celebrated Bessemer, Commodore and Alpena mines which are worked on a royalty. Besides these mines he is interested in others in Minnesota and on the Pacific coast.

Like many other of our successful lumbermen, Mr. Yawkey does not now confine himself exclusively to lumber and timber operations. In 1891 he established at Detroit, "The Western Knitting Mills," which employs 300 operatives in the manufacture of socks, mittens and other knit goods, with a yarn mill located at Rochester, Michigan, and of this company he retains the presidency.

He was married in 1869 to Miss Emma Noyes of Guilford, Vermont, who died December 2, 1892, a daughter, Augusta L., wife of Thomas J. Austin, of Detroit, and a son, William Hoover Yawkey, now associated with his father in business, being the issue. He is a member of the Masonic fraternity and in politics is a Republican. He is interested in the People's Savings Bank of Detroit, the First National Bank of Bay City and Flour City National Bank of Minneapolis, Minnesota, as well as the Michigan Fire & Marine and Standard Life & Accident Insurance companies of Detroit.

Few men have been more active or more successful in a business career extending over nearly a half century, and none have better stood the test by which an honored name and reputation are secured. From the age of fourteen years he has depended upon his own native tact, talent and resources, and his phenomenal success in the accumulation of an ample fortune are, by all who know him, recognized as the result of indomitable energy and unswerving integrity. The writer of this sketch has had the pleasure of calling him friend and business associate for nearly forty years and bears personal witness to the high esteem in which Mr. Yawkey has been held in each community in which his lot has been cast. Suave in manner, gentle in speech, his heart and his purse have never been closed to the appeal of worth and merit in misfortune, nor has there been a lack of practical sympathy when the wants of the unfortunate have been brought to his notice. Would that the world contained more wealthy men possessing the humane characteristics of William C. Yawkey!

Samuel W. Yawkey, eldest son of John H. Yawkey, was for some time a clerk in a general store at Massillon, but later was connected with his father and brother at Flint, in the purchase and sale of logs and lumber making Saginaw his headquarters. The stock of the retail yard at Massillon in 1850, was purchased at Saginaw, and Samuel in that year established himself at that point, the better to forward the purchase of stock for the Ohio yard, and this led to a permanent residence at East Saginaw, where he remained until 1858, acting as general agent of the firm of Avery & Williams of Chicago, (extensive purchasers of lumber at Saginaw), until 1856. In 1856 he formed the firm of S. W. Yawkey & Co., who did a large commission lumber business and was composed of Samuel W. Yawkey, John Estabrook and Clark Moulthrop. In 1858 he went to Chicago and entered into business with Thomas M. Avery, then one of the leading lumbermen of that city. In 1860 we find his name recorded in the Chicago directory as in business for himself. In 1864 he returned to Saginaw and became interested in business with his brother William C. Yawkey. He was a practical lumberman and possessed the faculty of making money; was of a sanguine, optimistic and venturesome disposition, and was always free and generous with his friends. In 1868 he was

W C Yawkey

elected mayor of East Saginaw and was elected representative to the State legislature from the county of Saginaw for the years 1865 to 1870, two terms sufficing him to the extent that he declined further honors. In 1871 he went to Nevada and engaged in the mining business and died at Elko in that state March 12, 1882. He left two sons and one daughter, the eldest son, John C. Yawkey, of the Victor Manufacturing Company of Detroit, died April 27, 1896. Cyrus C. Yawkey, the second son, of Hazlehurst, Wisconsin, is one of the firm of the Yawkey Lumber Company, and is well known to the lumber fraternity as a man who, like his father, possessed much public spirit and the confidence and esteem of a large circle of friends.

Edwin F., third son of John H. Yawkey, was born at Massillon, Ohio, June 27, 1837; he received a good education, and on leaving school became connected with his father's business, and was later in company with his brother as a member of the firm of W. C. Yawkey & Company. He was a thorough lumberman and an expert inspector, whose judgment was approved and accepted both by buyer and seller, as impartial and just, and without undue favor to either party who submitted to his arbitration, for that in fact is the legitimate position of a lumber inspector. He was of a quiet and retiring disposition, in which he greatly resembled his father. He was unmarried, giving his entire attention to business and was highly respected by all with whom he came in contact. He died at Bay City in 1872.

David Whitney, Jr.—Few men have been better known or more intimately associated with the lumber business of the nation, than David Whitney Jr. of Detroit. Mr. Whitney was born at Westford, Massachusetts, August 23, 1830, and in due time graduated from the Westford academy. At the age of 24 years he in 1854 began a lumber business at Lowell, Massachusetts, building up a prosperous trade which soon became wholesale in its character, extending throughout the New England states. The forests of the upper Connecticut river were at that time a prolific source of supply, and with a constantly expanding trade he soon found need of greater assistance, and was joined by his brother Charles Whitney and others in establishing wholesale and distributing yards at Ogdensburg and Albany, New York, and Burlington, Vermont, and at a later date at Tonawanda, New York, the principal office being located at Boston under the firm designation of the Skillings, Whitney & Barnes Lumber Company. Of this company Mr. Whitney was made president, an office which he retains to the present day. About 1857 Mr. Whitney began an investigation of the timber lands of Michigan and was not slow to discern that they were destined in the immediate future to become a most important factor in the lumber trade of the nation, and he at once began making investments in the timber of the streams tributary to the Tittabawasse and Saginaw rivers, and shortly became interested with men of enlarged and practical experience in woodcraft, in the purchase of large tracts of most valuable timber upon these and other streams in central Michigan, becoming probably the largest operator for many years in that section of the State, while it may be added that his operations were by no means confined to the Saginaw river and its tributary streams, but have extended to the rivers emptying into Lake Michigan from Wisconsin, as well as from Michigan, while the streams of the Lake Superior region have not escaped his vigilant eye in respect to the value of their timber resources. Mr. Whitney in connection with other associates, owned and for many years operated one of the largest and most complete saw mills in the State, located on the Saginaw river a few miles below Saginaw City.

During all the years since Mr. Whitney first became interested in the timber of Michigan, he has continued his connection with the company at Boston, with its extensive branches at Ogdensburg, Burlington, Albany and Tonawanda, being president of the corporation which controls the vast business carried on at those points. He is still a comparatively young man at three score and six, the immense business interests which have occupied his time for nearly a half century, having left few marks of corroding care and so far as human judgment can discern, bids fair to live for many years to enjoy the ample fruits of an industrious life, and to recount an experience such as has been accorded to but a few among the more extensive operators in the lumber fraternity. When he first came to Michigan the forests were in practically their primeval condition, and reckless indeed would he have been considered, who would suggest the possibility of their complete destruction within hundreds of years, yet Mr. Whitney has seen the vast forests disappear until within his own lifetime but a vestige of their greatness remains.

Mr. Whitney has for many years been a resident of Detroit, where he holds large amounts of valuable city property, much of which he has improved and it is numbered among the more attractive and popular business blocks and residence locations. He is also one of the more extensive among the owners of Lake Marine, being interested in many of the larger and more modern craft upon the lakes.

Ezra Perry Barnard was a native of Adams, Jefferson county, New York, where he was born November 19, 1834. His father was a farmer who combined lumbering in winter with farming in summer, and at the early age of ten years, Ezra assisted his father by driving a logging team in the delivery of logs at the mill of Jason Clark in the town of Pallissas. This was a sash mill with a spring pole to help the saw in its upward motion, and was run by an overshot water wheel, cutting about 2,000 feet from daylight to dark. Ezra assisted his father until in 1848 when he came west, landing at Detroit, whence he walked across the state to White Lake, where he hired out to a trapper and hunter for $12 per month for the winter, and in the spring went to Greenville on Flat river, where he found employment in the old Lincoln mill at the mouth of Black creek, where it empties into Flat river above Greenville, spending the winter in the woods and assisting in rafting operations down Flat river and Grand river in the spring.

In 1854 he assisted in building one of the first circular mills of the country, in the north part of

Kent county, and operated it as head sawyer for a year, when he sold his interest and going to Muskegon entered forty acres of land near Croton on the Muskegon river, and with two yoke of cattle spent the winter in logging, selling his stock in the spring to John Ruddiman at $4.00 per thousand. In 1856 he went to Spring Lake where he did a log jobbing business, building four miles of tramway with banking ground at the head of Spring Lake where the village of Fruitport stands now. His father coming west about this time and settling in the township of Oakfield, Kent county, Ezra turned over this operation to him, and took a contract for supplying the piling for the extensive works of the Detroit, Grand Haven & Milwaukee railroad at its crossing of Spring Lake, around on the west side of the Grand river under the Big Sand Hills with depot on west side of the river opposite Grand Haven. As the railroad company could not agree with the citizens of Grand Haven, a compromise was effected and bridges built for a direct crossing of the river, the projected works abandoned soon after being buried in the drifting sand. A year later Mr. Barnard set a large gang of men at work at Lincoln Lake, Montcalm county, in the manufacture of shaved shingles which had not as yet been superseded by the sawed article which a few years later monopolized the market. Having accumulated a few dollars he was seized with a desire to see more of the world and crossing the lake in a schooner to Chicago, found upon landing that the first train of the Chicago, Burlington & Quincy road was soon to start westward, and without waiting to get his breakfast got aboard, not knowing whither he was destined to bring up. Finding, however, that a large number of his fellow passengers were in the employ of a man who had a large drove of cattle to be driven from Nebraska to Salt Lake, he applied for and obtained employment with them. Receiving his discharge at the end of his journey, he, with six others, purchased two yoke of cattle and continued his journey across the mountains reaching Placerville, California, in October, 1857.

In a short time he found employ with Carter & Ludwig on the Ogleby grade twenty-five miles east of Hangtown and assisted in the erection of a single circular saw mill running a Spaulding inserted tooth saw of sixty-six inches diameter, and on its completion took a contract for cutting 6,000,000 feet of logs at one dollar per thousand. This cutting had hitherto been done with axes, but Mr. Barnard tried the experiment of sawing down the timber, and his success led to the adoption of that method of cutting down the sugar pine trees of that region. In August of that year he took a contract for supplying the mill from the stump at a contract price of $6.25 per thousand and in 1860 purchased a half interest in the business and took charge of the saw for the balance of the season. In November, 1866, he sold out and made a visit east with the full intention of returning to California after a visit to his old home, but while at Grand Rapids found an opening for a good logging operation near Greenville and decided to embrace the opportunity. Not long after he formed a partnership with James Stewart and did a logging business on Flat river as long as any timber remained to be cut, carrying on heavy operations at Grand Haven up to the winter of 1873, in which year he located a mill at the village of Maple Valley, Montcalm county, on the Detroit, Lansing and Northern railroad. This mill was a single circular with a capacity for cutting 8,000,000 feet per season and ran until 1882, when the log supply failing he removed to West Troy, Newaygo county, on the Chicago & West Michigan railroad and built a double circular mill with all modern improvements, and a capacity for the manufacture of 160,000 feet per day, which he operated until August of that year when he sold it, and turned his attention to a mill which he had in the meantime built at New Era, having capacity of about 9,000,000 feet per season. In 1887 the stock of this location being practically exhausted he went to Menominee in the upper peninsula where he purchased the circular and gang mill of the Detroit Lumber Company, where with a capacity for cutting 10,000,000 feet of lumber and 2,000,000 shingles per year, Mr. Barnard reconstructed the plant and increased the capacity to 30,000,000 feet of lumber and 5,000,000 shingles per year. This he operated until December, 1893, when he sold out to S. R. Fraser and the operation became as that of the Menominee Saw Mill Company, being now operated by Henry Swartz of Marinette, Wisconsin. Losing his health Mr. Barnard retired from the manufacturing branch of the lumber business while still to an extent engaged in logging operations on the Menominee river.

The manufacturers of saw mill machinery are indebted to Mr. Barnard for some advanced ideas in the construction of their devices. It is often necessary to advance one end of a log upon the carriage in order that the saw may follow the grain of the wood, or to get rid of a swell butt or heart defect, a result attained through placing a block of wood between the log and the standards until Mr. Barnard suggested to the Stearns Manufacturing company the utility of mechanism under the control of the setter, which enabled him to advance or recede each block independently of the other, an idea which was soon universally adopted in the construction of head blocks. He was also the originator of the idea of highly tempering the center of a circular saw for a distance of about sixteen inches from the eye, for the stiffening of the saw and preventing undue expansion of the rim.

Mr. Barnard was married in 1867 and in 1893 made his permanent home in Detroit where he now resides at 1070 Fort street west.

E. C. Bradford.—The stave business of Michigan has long been practically centered at Detroit, and among the most extensive operators in this branch of forest industry has for many years been C. E. Bradford of Detroit. Mr. Bradford in 1870 in connection with J. H. Remick became manager of the National Stave Company, an eastern organization, which at that time chose Port Huron as the base of its operations, and transformed the mill formerly known as that of Skinner & Ames into a stave mill, where they carried on the manufacture of from one to two million barrel staves per year. This mill was burned in 1876 and was not rebuilt. Mr. Bradford, afterward associated with him his brother, C. C.

Bradford, under the designation of E. C. Bradford & Brother, and continued the manufacture and shipment of slack barrel staves and heading, with mills at Reese and Caro in Tuscola county, Barminster in Gratiot county, Carson City in Montcalm county, and Park Lake in Osceola county, using elm and basswood to a large extent, and adding to the stave business the manufacture of lumber from maple, rock elm, basswood, birch and other products of the forest which of late years have assumed an economic value in the building world, proving a most valuable adjunct and successor to the rapidly disappearing pine resources of the State. For several years the headquarters of the firm have been at Detroit, whence they have managed a business reaching a volume of 12,000,000 staves per year, besides vast quantities of barrel heading, and sawed lumber.

Thus it will be seen that vast forests of hardwood which up to about 1870 were considered of little or no value, except for firewood have been developed into a source of national wealth in sections where through the predominance of pine timber it was scarcely dreamed that the hardwood resources could ever become of economic value in the industries of the country except in the most limited quantities, and in the manners, for the uses above mentioned they have assumed an importance which bids fair to make the despised and rejected products of the forests a greater source of wealth than its once aristocratic and courted predecessors of white and norway pine. And this has largely been brought about through the foresight and energy of such men as E. C. Bradford & Brother.

Frank W. May.—The history of the lumber trade of the north presents but a few instances in which colored men have taken a prominent part either as dealers or manufacturers, but as no insuperable objection has existed to prevent, the few instances are worthy of notice and in this connection it is proper that we should mention Frank W. May, hardwood dealer in Detroit, whose remarkable experience in life is worthy of note, as an illustration of the pluck and energy, and no less the intelligence of individual instances of an oppressed race which has emerged from a condition of slavery, and been permitted to stand upon an equality with those who aforetime held them in bondage. Of his early history we prefer to use Mr. May's own language.

"I was born in Mead county, Kentucky, in 1854. and in 1861 was taken to Louisiana, where I lived upon a cotton farm for one year. As things began to get warm in that neighborhood because of the war, I was very unceremoniously taken to Texas where I remained until notified that we were all free, which information we should have received a year earlier, but our master would not have let us know it even then had not some government agents visited the plantation and caused us to be brought before them in the presence of our master, to inform us that we were free and could go where and when we pleased. Our master impressed upon us the fact that we had no friends and no one about there wanted us, and that he felt deeply grieved over our helpless situation in having to go out into the world alone where we would probably starve to death, but that if we would sign a contract to stay with him one year for food and clothing he would take us all back home. All signed except myself, he saying it would not be necessary for me to sign as my mother had written him to keep me with him and bring me home when he came. I was well satisfied with the arrangement and he took us all back to Louisiana where all left him except myself, I remaining upon his promise to take me to my parents. At the end of a year in which I did my best to please him, nothing was said about going home and I began to feel a little shaky, but worked on as long as I could stand it, when I mustered courage to ask him about it and was promptly told not to ask again and that when he got ready he would let me know. That was the most trying hour of my life and I felt that I was booked for bad luck, but concluded to try and change it by going to work for another man who agreed to pay me $8 per month. After working for eleven months and drawing but ten or twelve dollars for clothes, I came out even on a settlement which should have netted me $75. After thinking the matter over, I pocketed my loss and went to the Mississippi side and found work at five dollars a month and at Christmas received $45. As it seemed from my previous experience that the payment of wages depended upon how the employer felt about paying, I concluded that God must have got hold of this man and opened his heart and his purse also. I was well pleased, however, and set out to find my parents, and found my mother still living on the old farm, but unable to give me much of a reception. I dragged around there until I was nearly naked, able to get plenty of work but no money, so I started north and found employment in the street car barns of Louisville, Kentucky, where I worked for three years, but was unable to save any cash money, and being more of a farmer than suited to town work, found it difficult to get a job. However, in the course of time I got work in the car shops of the Louisville & Nashville road, where after working a year I had my hand crushed and quit the job, and as I could find nothing desirable to do left there and came to Detroit, where I hired with J. & T. Hurley coal dealers, as a teamster and after a year was employed by a lumber firm as teamster."

In this humble capacity Mr. May developed so great an aptitude of judgment in watching the inspectors and noting the basis upon which they determined the grades of lumber that in the course of a couple of years he was promoted to the position of inspector, to the satisfaction of the firm and of its customers. In this occupation he was not slow to discover that there was money to be made out of a coarse variety of stock, especially in hardwoods, by a cutting up process by which lumber which was not desirable in the yard could be ripped into sizes which would utilize the valuable portions. Procuring a team he began a business of hauling lumber, and thus became acquainted with the location of such unmarketable stock as could be purchased at a low price and manipulated it into sizes suited for the use of furniture manufacturers; including table legs, spindles for grill work, bannisters, etc., together with pine scantling and other material of the softer woods. This he continued for some time gradually increasing his business, building a mill in 1890 in which he carried on a yet more extensive business, still purchasing only that stock which was less desirable in the yards, and consequently cheap, soon finding it necessary to purchase log stock for his mill which in 1895 he rebuilt with a gang and band saw with a full complement of minor machinery for the manufacture of furniture stock in addition to the manufacture of lumber into which the demands of his business had grown from nothing to from two to three million feet per year. In the remodeling of the mill ample power was added with a view to keeping pace with a rapidly increasing trade. He now employs twenty-five men in the mill and in his winter operations in the woods of Otsego county forty men are employed in the cutting of the excellent oak and pine of which a tract was purchased in that county. Mr. May has succeeded in building up a trade which is not confined to Detroit, but extends to Michigan and Ohio and to the east. In connection with his operations he has added a well appointed planing mill for the prosecution of a general planing mill business. Mr. May is recognized as an intelligent, enterprising and honorable dealer, and while not aspiring to rank among the more extensive operators in the State, is worthy of mention as one who discerned a value in what was practically worthless material, and has succeeded in demonstrating that it pays to utilize such portions of that class of lumber as are adapted to the wants of the trade, and can be sold at a reduction from the values of better grades, illustrating the truth of the adage: "He is a benefactor to the race who makes two blades of grass grow where but one grew before."

M. W. O'Brien, of Detroit was born in Flynfield, County of Kerry, Ireland, receiving an Academic education at Killarney. Reaching this country at the age of eighteen years, he in 1853 accepted a position with the Rock Island railway, first on the line, and later in the general offices of the company. In 1854, being then 21 years old, he became bookkeeper for the Chicago lumber firm of Howell & Stephens, consisting of James C. Howell, John H. Stephens and H. B. Cone, and represented the Stevens interest until the death of that gentleman in 1855, and upon the death of Mr. Howell in 1856 he, with the sole surviving partner, formed the firm of Cone & O'Brien, with office and lumber yard on Stowell's slip, on Clark near Twelfth street. (As an interesting reminiscence of the early Chicago lumber trade which at that time was centered around Lake street bridge with this locality as its southerly limit, we may mention the fact that the Stowell slip, (long since filled up) was occupied by the late George M. Higginson & Co., W. J. Duncan & Co., (and afterward Humiston & Co.), and at the Eleventh street end by Joseph Peacock. On the Twelfth street side was the planing mill and sash, door and blind factory of Goss & Abbott who upon the burning of the factory, separated and formed the firms of Goss & Phillips, with factory on the corner of Twelfth and Clark, and Abbott & Kingman, corner of Eleventh and Clark. Eldred & Balcom also occupied a portion of the north side of the slip). Cone & O'Brien continued business at this point until 1860, when in connection with Amos Rathborne of Grand Rapids, they purchased the "Rogers" mill at White Lake, Michigan, under the firm name of Cone, O'Brien & Co.

In 1861, the firm purchased the Rathbone interest, and about 1864, Mr. O'Brien sold his interest to his partner, who now formed the firm of H. B. Cone & Sons. Mr. O'Brien then associated himself with John Walsh in the firm of O'Brien & Walsh in the retailing of lumber, and purchased a half interest in the saw mill (later purchased by Rust & Eaton), of his father-in-law, James Watson, at Bay City, where he remained for two years, Mr. Walsh continuing the retail business on his own account at the Chicago yard. Two years later Mr. O'Brien disposed of these interests, and going to Detroit became associated with Francis Palms (at that time probably the largest holder of pine lands in the State of Michigan), in the institution of the People's Savings Bank, (Mr. Palms being president, and Mr. O'Brien cashier), whose original capital of $30,000 in 1870, was from time to time increased until in 1875 its capital was $500,000; and under Mr. O'Brien's management as president, since the death of Mr. Palms, has present assets of over $700,000,000. Upon the death of Mr. Palms, Mr. O'Brien was named as a co-trustee with the son and daughter of his deceased friend, in the administration of his vast property. In this connection he was made president of the Dollarville Lumber Company of Dollarville, Upper Peninsula, lately sold to Danaher & Melendy, who will operate it. In the same connection he also held the presidency of the Peninsula Land Company, a corporation formed by the builders of the Detroit, Mackinaw & Marquette railroad, for the purchase of station sites and available lands upon the line of road, interests recently purchased from the other stockholders, and now concentrated in the Palms estate, of which Mr. O'Brien continues in the trusteeship. Mr. O'Brien was the principal organizer of the Michigan Bankers' Association, of which Perry Hannah (of the firm of Hannah, Lay & Co., lumbermen of Grand Traverse, Mich., and Chicago), was first president, being succeeded by Mr. O'Brien in that office. He was also active in the organization of the Detroit Clearing House, and chairman of the Clearing House Committee, during the memorable panic of 1893, and was a member of the credit committee of that organization; the manner in which the Detroit Banks passed through that financial crisis attests the wisdom of the work of these committees. To Mr. O'Brien as treasurer in connection with William J. Onahan of Chicago, as secretary, was due the great success of the two great Catholic Congresses held in this country, the one at Baltimore, and the other at Chicago, (during the Columbian Exposition).

Beside the responsible duties devolving upon him as president of the People's Savings Bank, and trustee of the estate of the late Francis Palms, Mr. O'Brien is a director and treasurer of the Michigan Fire and Marine Insurance Company, and of the Standard Life and Accident Insurance Company, and is secretary and treasurer of the Detroit Gas Company. He about 1860 was married to Martha Frances, daughter of the late James Watson of Bay City, three sons and a daughter being the fruit of the union.

Thomas Ouellette, a hardwood lumber merchant of Detroit, with office in the Home Bank building, was for many years a representative of one branch of the forestry industry of the northwest, the extent and importance of which has perhaps been less appreciated by the general public than any other of the branches. The western portion of Canada, southern Michigan, northern Ohio and northern Indiana, originally contained vast forests of oak, which was especially esteemed by the ship builders of the old world for its toughness and remarkable adaptability for ship-building purposes. The timber of western Canada was especially esteemed, and for many years subsequent to 1830, the quantities of square oak timber and staves, shipped from this region, gave employ to a considerable fleet of vessels, both upon the lakes and the ocean. Unfortunately no statistics of the extent of the trade are available, the importance of such records not being appreciated up to 1870, at which time the business was rapidly approaching its practical end and Thomas Ouellette represents one of the few surviving merchants who were among the heavier operators. Mr. Ouellette was born at Windsor, Canada, in 1842. His father, Jean Baptiste Ouellette, was a farmer and timberman, his winters being spent in the woods in the manufacture of square timber and staves. He was a native of Windsor, where he was born in 1804, and was of an age at the time of the surrender of Detroit to remember the stirring events of that day. About 1846 he removed to Amherstburg, where he resided until his death in 1873. He for many years maintained a landing on the Detroit river from which he supplied wood to the extensive and increasing number of steamboats which were operated upon its waters, in connection with his timber and stave trade. Thomas, the subject of this sketch, grew up in connection with his father's business, and became familiarized with its details from an early age, and in 1859 became financially interested in its success. In 1868 he purchased his father's interest and continued the business until 1872, when the Canada Southern railroad then under construction, requiring the dock property for depot purposes, it was sold to them and Mr. Ouellette entered into contract to supply the road with wood for the fuel of its locomotives. In 1874 he bought up a large quantity of the oak timber which still remained in Essex and other counties of the neighborhood and entered upon the manufacture of sawed lumber there being much timber suitable for sawing which had not been found available for the manufacture of square timber and staves. His sawing was obtained at mills of the neighborhoods in which he operated, and included ship timber and other uses to which oak is adapted. Such timber as was suitable, he continued to hew into squares, as also utilizing that which was suitable for staves both of which articles have ever found ready market. Having investigated the hardwood resources of the south, and the home supply being rapidly depleted, he in 1890 organized the Ouellette, Curphy Lumber Co., and with a large mill at Vicksburg, Mississippi, purchased large bodies of timber in that section and engaged in its manufacture. He in 1893 disposed of his interests in this company, retaining large bodies of valuable hardwood lands on the Mississippi river and in Missouri, Arkansas, Tennessee, Mississippi and Louisiana, from which he has cut a large quantity of excellent timber, which he has manufactured at the mills at different points of supply, his large wholesale trade with Chicago, Detroit and eastern cities, including no small amount for which demand is found in Canadian cities and markets. With the changing conditions and demands of the country Mr. Ouellette has found it necessary to extend the scope of his trade, and now includes the handling of cottonwood and other products of the southern forests, for which there is large demand in the construction of box and refrigerator cars, as well as other of the industries of the land which modern civilization and industry has developed. For thirty-five years Mr. Ouellette has been interested in the hardwood branch of the lumber trade, his sales of late years running from fifteen to twenty million feet per year, according to the demands of the times. While he offices and has his headquarters at Detroit, he resides upon his farm at Amherstberg on the Canadian side of the river. He was married in 1873 to Miss Elizabeth Wiseman of Amherstberg, Canada, and has two sons and three daughters, his eldest son John B. being connected with his office where he is preparing himself for continuing the business so successfully established by his father who is recognized as one of the leading business men of the city, and one of the leading hardwood lumber merchants of the State. Probably no man has a better acquaintance with the hardwood timber resources of the entire nation, and of the Dominion than the subject of this brief sketch.

Francis Palms.—The sketch here given is a tribute paid to the memory of a man whose noble and honorable life was an example to all. Francis Palms died as he had lived, a noble type of the upright, straightforward man. He was of foreign nativity, his birth occurring in Antwerp, Belgium, in 1810. His father, was commissary in the French army under Napoleon I. until the battle of Waterloo ended the military career of that noted chieftain and himself, when he returned to Antwerp and engaged in manufacturing. Here in a few years he built up one of the largest manufacturing interests in the kingdom. However, in 1831, his manufacturing establishment and a large amount of manufactured products were entirely consumed by fire.

Not at all discouraged by these reverses Mr. Palms gathered together what was left of his magnificent enterprise and crossed the ocean to America with his family of four sons and two daughters, the eldest of whom, Francis, is the subject of this brief memoir. The family arrived in Detroit, Michigan, in July, 1833, and there resided for three or four years. Then the father with three sons and one daughter moved to New Orleans where Mr. Palms again established himself in business and where he continued to make his home until his death in 1876.

Francis Palms and his sister, Mrs. D. J. Campau, remained in Detroit. In that city when twenty-three years old the former commenced his business career, first as clerk and subsequently as a manufacturer of linseed oil on his own account. In 1857, having disposed of this business, he entered the employment of Franklin Moore & Co., wholesale grocers with whom he remained until 1842. The firm was then re-organized and the name changed to Moore, Foote & Co., Mr. Palms becoming a partner, and when a a few years later the firm was dissolved, Mr. Palms retired from it with a considerable cash capital.

His first venture in land dealing was in the purchase of forty thousand acres of elm timber land in Macomb and St. Clair counties. This he held for a few years and then sold in small portions to stavemakers and farmers for several times his original investment. His experience here led him into the purchase and sale of timber lands, especially pine, to which he mainly devoted himself during the remainder of his life, first in the lower peninsula and afterwards in northern Michigan and Wisconsin, until he became one of the largest operators in pine lands in the country.

Mr. Palms' remarkable foresight caused him to retain all mineral rights from lands sold by him in the upper peninsula, and this afterwards left him owner of valuable mining districts such as the Palms, the Mikado and other mining districts in the Gogebic range. In order to connect the two peninsulas of Michigan more closely, an appropriation of swamp lands was made by the legislature, and the construction of the Detroit, Mackinaw & Marquette railroad was undertaken and completed, mainly by the capital and enterprise of James McMillan and Francis Palms. In this connection the Peninsula Land Co. and the Dollarville Lumber Co. were organized and their stock was largely purchased by Mr. Palms during his life time and the residue subsequently purchased by the trustees of his estate.

Mr. Palms personally transacted most, and supervised all of his extensive business, and some time before his death he commenced to put his business affairs in shape for what soon afterward happened. Francis Palms was a man of broad comprehensive grasp of mind, positive individuality, strict integrity and a high sense of honor. His word or promise was never questioned and his veracity untarnished. Although amiable even to retiring modesty he was yet a dangerous man to trample upon; plain and easily approachable, his charity was unostentatious. A fluent and pleasing conversationalist in several languages he was most highly esteemed by those who knew him best. Faithful and generous in his friendship his death was sincerely mourned by many.

He erected several fine buildings in Detroit and contributed liberally to the development of its industries. In 1870, in connection with M. W. O'Brien and others, he organized the People's Savings Bank of Detroit and became its first president, a position he occupied until his death, November 24, 1886. At that time he was also president of the Michigan Stone Co., of the Michigan Fire & Marine Insurance Co., and vice-president of the Detroit, Mackinaw & Marquette railroad company. He was a director in the Standard Life & Accident Insurance Company, the Vulcan Iron Furnace Company, the Union Iron Company, the Michigan Brass and Iron Works, the Peninsula Land Company, and the Dollarville Lumber Company.

In the year 1836 Mr. Palms married Miss Martha Burnett who died soon after the birth of a son, Francis F. Palms, who now resides in Detroit. In 1840 he was again married, selecting his wife in the person of Miss Catherine Campau, daughter of Joseph Campau, by whom he had a daughter, Clotilde, who is now the wife of Dr. J. B. Book and resides in Detroit.

Though never owning a saw mill, nor to any extent a manufacturer of lumber, Mr. Palms is remembered as one of the largest and most extensive pine land operators of his day.

CHAPTER IX.—FLINT.

THE SAW MILLS OF THE THREAD AND FLINT RIVERS.—SKETCH OF EX-GOV. H. H. CRAPO.

THE year 1839 saw the erection of the "Kearsley" mill near Flint in Genessee county, and in 1844 the Stevens & Pearson mill was sold to John Hamilton, by whose name it was known for the next fifty years. The Kearsley mill was three miles up the river from Flint in a mixture, of pine and hardwood forest, which produced as fine a grade of timber as was ever slaughtered in a saw mill. We do not use the term "slaughtered" unadvisedly, inasmuch as the saws of that day and down to about 1870 were dressed to a saw kerf closely approaching a half inch, and as only the choicest logs of the forest timber were taken, the waste in sawdust was enormous, and this applies not more to the gate and mulay saw than to the circular which came into use about 1850, and which for many years was still more destructive than its predecessors in its waste of timber in sawdust.

In 1850 George H. Hazelton built a steam mill on the north side of the river, being the first steam saw mill at Flint, Mr. Hazelton was at the same time running a water mill, the product of which was rafted down the river to find market at Saginaw. This mill was burned in 1851 and was rebuilt by Alexander McFarlan, who became purchaser of the site. The demand for lumber from 1840 to 1850 was very large; vast quantities of shingles were "breasted" by the farmers of the neighborhood, nearly all of whom had more or less pine trees upon their farms, and as these were looked upon as an incumbrance, and there was no paying labor to be had during the long winter, and stormy days of spring and fall, the seventy-five cents per thousand obtained for their shingles was considered as just so much money "picked up in the street." As an evidence of values at that time and since, we may cite a Genessee county farm which was taken up from government in 1839 at two dollars and a half an acre, the 400 acres selling in 1873 for $6,000 which was considered an enormous price at the time; in 1881 the same 400 acres sold for $20,000 and in April of the same year for $25,000—an advance of $24,000 in forty-two years, which but a few years later was increased to nearly double the figures of the previous sale.

Our first statistical tables regarding the production of lumber at Flint begin in 1867, although as elsewhere noted the lumber industry had for many years been an important one. The production in 1867 was 68,000,000 feet of lumber, and 40,000,000 shingles; 1868: 82,110,000 lumber and 51,800,000 shingles; in 1869: 90,500,000 lumber, 50,500,000 shingles; 1870: 118,400,000 lumber, 52,300,000 shingles; 1871: 115,000,000 lumber, 62,000,000 shingles; 1872: 117,000,000 lumber, 54,000,000 shingles; 1873: 127,000,000 lumber, 64,000,000 shingles; and this marked the culminating production at this point, the cut of 1874 being but 75,000,000 feet of lumber, and 52,000,000 shingles; 1875: 73,000,000 of lumber and 51,000,000 shingles; 1876: 44,385,000 lumber and 14,500,000 shingles; 1877: 38,710,857 lumber, 10,950,000 shingles; 1878: 30,886,523 lumber, 15,200,000 shingles; 1879: 30,220,000 lumber, 20,275,000 shingles; 1880: 29,550,000 lumber, 24,050,000 shingles. By this time most of the mills had gone out of commission, and those which remained sought their log stock from Clare and other western counties, by means of the Flint & Pere Marquette railroad. The total production at Flint subsequent to 1839 the historian estimates to equal 1,500,000,000 feet.

Notable among the operators at Flint was the Hon. Henry Holland Crapo, who was twice elected to the State senate, in which he served from 1862 to 1864, in the fall of which year he was elected Governor of the State, serving with marked distinction and being re-elected to the same office in 1866. Mr. Crapo was a native of Dartmouth, Mass., where he was born in 1804. About 1832 he went to New Bedford, Mass., where his talents were soon recognized, and for many years he was called to positions of high trust and responsibility, and accumulated quite a fortune. About 1850 he became interested in some large tracts of land in Lapeer county, Michigan, and in 1856 purchased the Hamilton mill (elsewhere mentioned as the Stephens mill) which consisted of a sash and circular, which was soon after remodeled by the substitution of a mulay saw in place of the sash. In 1857 he purchased the Payne mill. In 1858 he removed his family to Flint and thus became more closely identified with the interests of that city. The Hamilton mill being burned about 1864, a new mill was erected with two circulars, (one of which was eight feet in diameter for sawing the very large cork pine logs, which were a characteristic of the Flint river forests,) a mulay and a gang. with a capacity for cutting 100,000 per day of eleven hours. Mr. Crapo died in 1869 but the mills continued to run under the auspices of the estate, and are still in limited operation, having produced as high as 22,000,000 feet per year, the aggregate production since 1856 being fully 500,000,000 feet. Mr. Crapo was eminently a man of affairs, and was probably the most active among the promoters of the Flint & Holly railroad, which a few years after its construction became a portion of the Flint & Pere Marquette railroad, than which no road has done more to develop and promote the prosperity of the State of Michigan.

In the heyday of its prosperity as a lumber producing point there were nine mills operated by the following named parties:

W. W. Crapo two mills, capacity 25,000,000 feet of lumber, and 2,000,000 shingles, operating two mulay saws, three circulars and one gang; A. McFarlin 10,000,000 feet, with one mulay and two circulars; C. & H. C. Haskell, 10,000,000 feet, with one mulay, one circular, and one gang; J. B. Atwood & Co., a mulay and circular, 7,000,000 feet; Begole Fox & Co., mulay and circular, 7,000,000 feet; Stewart & Eddy, mulay and circular, 5,000,000 feet; William Hamilton & Co., mulay and circular, 6,000,000 feet; Smith & Carpenter, mulay and circular, 5,000,000 feet; E. K. & F. Buttricks, shingles, 4,000,000. In these nine mills the capital invested was about $425,000, and the average production about 60,000,000 feet of lumber and 50,000,000 shingles per season. The cut of the Flint mills previous to 1864 was rafted to the Saginaw market, but upon the building of the Flint & Pere Marquette railroad it found an outlet by that road to eastern markets.

In addition to those at Flint, Genesee county contained a number of smaller mills, principally at Clio, where there were eighteen mills, with a preponderance of shingle manufacture, the lumber cut of 1869 being noted at 10,500,000, with 30,000,000 shingles; these mills employed 124 laborers, and had an invested capital of $138,000. With the decadence of the log supply, these mills many years ago ceased to be a factor in the supply either of lumber or shingles, after producing a total volume estimated at 500,000,000 feet.

There were in 1840, according to a census report of that year, 491 saw mills in Michigan, employing 1144 men, while retail lumber yards are noted as having been established at various points in the State to the number of fifteen, employing 312 operators, and with a capital invested amounting to $45,600,000. No statistics are obtainable to show the extent of yearly production, at that time but a conservative estimate would probably place it at not to exceed 100,000,000 feet in the State, most of which was consumed in the building of the farm houses and barns, and other uses requisite in the building up of a new country, the principal point of export on the west being Chicago, to which market 4,579,000 feet were sent from all sources in that year.

As it is not necessary that we should follow the individual mills erected during the succeeding half century, we may at this point present in contrast the census report of 1880 which placed the number of saw mills at 1649; men employed, 24,235; capital invested, $39,260,428. Yearly wages paid, $6,967,905; value of log and mill supplies, $32,251,372; product in feet board measure, 5,500,000,000; value of lumber product, $52,449,928.

The United States census of 1850 credits Flint with but two saw mills, viz., Stage & Wright, and the Grand Traverse Hydraulic Association, whose mill was afterwards known as "Crapo's lower mill," crediting this latter with a sawing capacity of 3,500,000 feet. In 1854 there were four steam and three water mills at Flint with an aggregate capacity for cutting 16,800,000 feet.

Prices of lumber in 1838 and 1840 were quoted at from $10 to $15 per thousand, no doubt local prices to settlers, but with an increased production, prices in 1846 are quoted at $3 for common, $4 for selected and $8 for clear, while for 1854 an average value of $11 is quoted. By 1870 the mill capacity had increased to 90,000,000 feet, employing 500 operators with seven planing mills also in operation, but by this time rail shipments were fully available for reaching outside markets. The upper mill of the Crapo's was now built, and those of Begole Fox & Co., McFarland, and J. B. Atwood & Co., had been added. Near the mouth of the Thread river, Hiram Smith had a hardwood mill and in connection with it a charcoal works, with a chemical distillery for the manufacture of wood alcohol and other bye products. The rail shipments of 1877 are noted at 45,118,500 feet, while small mills in that section were shipping from various smaller stations. In 1835 Sherman Stevens built a steam mill at Royal Oak in Genesee county, the product of which in after years, was largely of oak used for the building, a few years later, of the Detroit, Grand Haven & Milwaukee railroad, in the building of which the right of way was paid for by trading a mill at Flint, heretofore mentioned as having been erected by Mr. Stevens at that point.

Henry Howland Crapo was for many years prominent, not only as a lumber manufacturer at Flint, and a leading business man, but as well in the politics of Michigan, and as the incumbent of the highest office in the gift of the people, the governorship of the State for two consecutive terms.

Mr. Crapo was born at Dartmouth, Bristol county, Mass., May 24, 1804, the eldest son of Jesse and Phoebe (Howland) Crapo. The family was of French descent, and poor in this world's goods, the farm upon which they lived at Dartmouth, yielding but a precarious living. Henry's youth was one of many privations and much hard work, while his native talents led him to high aspirations, not only in the acquirement of the perfect command of language, but in preparation for the useful and successful life which later marked the man of influence. Using every moment which could be spared from his daily routine of labor, he became a proficient scholar, and having a penchant for the profession of surveyor, constructed a compass from tools which a kindly blacksmith permitted him to use during the noon hour. With the establishment of a High School at Dartmouth, Henry took a course of study which enabled him to pass a successful examination for its principalship, and obtained the appointment. In 1832 he removed to New Bedford, where he followed the occupation of land surveyor, and occasionally acted as an auctioneer, and was soon after elected town clerk, treasurer and collector of taxes, positions held by him for two or three years. He was also police justice for some years, an alderman of the city, and chairman of the council committee on education, and prepared the report which led to the establishment of a free public library, the first in Massachusetts, if not in the United States. With broad and utilitarian views, he became noted as a horticulturist, and demonstrated the practicability of reclaiming waste and marshy lands by drainage, and at a horticultural fair in Boston, exhibited one hundred and fifty varieties of pears, and one hundred varieties of roses of his own propagation upon reclaimed lands. New Bedford was at that time a prominent center from which the whaling business was carried on, and

John A. Brooks

Mr. Crapo was part owner of the whaling barque Henry H. Crapo. He was much interested in the State Militia, and for several years held a commission as colonel of one of the regiments. He was president of the Bristol County Mutual Fire Insurance Company, and during his incumbency of municipal offices, published, between 1836 and 1845, five numbers of the New Bedford City directory. From this it will be seen that Mr. Crapo was a man of affairs, and was eminently fitted for the important career which crowned his later life.

In 1855 he made a trip to Michigan, and becoming impressed with the magnitude and value of its forests of pine, began in connection with James Arnold and Hon. Joseph Grinell the purchase of soldiers' warrants, with which he located large bodies of valuable lands on the Flint river, and in 1856 purchased the Hamilton (elsewhere mentioned as the "Stevens") mill at Flint, the mill being a sash and circular, which he soon after changed to a mulay in place of the gate. In 1857 he purchased the "Payne" mill. Some years later upon the destruction of the Stevens mill by fire, he erected (planned and supervised in construction by H. H. Crapo Smith) a new mill containing two circulars (both of which were six feet in diameter) with one eight foot mulay, and a gang, calculated for cutting 110,000 feet per day. This mill continued in operation for many years after the death of Gov. Crapo, under the auspices of his son the Hon. Wm. W. Crapo, executor, and the timber supply under their control being exhausted, was rented and is still in operation, drawing its log supply from western counties over the Flint & Pere Marquette railroad.

When Mr. Crapo began the manufacture at Flint, lumber was selling at from $15 to $16 per thousand log run (culls out) which at this time comprised stock which would run from 40 to 60 per cent. to the upper grades, as none but the finest logs were cut, and the timber of the Flint river was of an exceptionally good quality of "Cork" pine. During the operation of the mills they were improved from time to time, and reached a yearly cut of as high as 22,000,000 feet in a season, the aggregate product of the thirty years during which they were operated exceeding 500,000,000 feet.

Gov. Crapo was no less a man of affairs in Michigan than he had been in New Bedford. In 1860 he was elected mayor of the City of Flint, and in 1862 was elected to the State senate. In 1864 he was elected governor of the State, serving with such acceptability as to receive a renomination and reelection in 1866, holding the office until January, 1869. His administration was signalized with firmness and a wisdom of executive ability which marked the progressive statesman.

Gov. Crapo was one of the most prominent in securing the construction of the Flint & Holly railroad, which subsequently became a connecting link of the Flint & Pere Marquette railroad, having little difficulty in enlisting the co-operation and support of his former friends, capitalists of New Bedford, and in this as well as in all of his enterprises, public as well as private, displayed the qualities which mark the far seeing and intelligent business man. He died at Flint, July 23d, 1869, leaving a large estate.

Upon the death of Gov. Crapo the assistant management of the affairs of the estate fell to the hands of H. H. H. Crapo Smith, a son-in-law, who had married Lucy A. Crapo, a daughter of Gov. Crapo, Dec. 15, 1858, and had been intimately associated with him for many years in the conduct of the business; associated with him in this connection was H. P. Christy also a son-in-law of Gov. Crapo.

In 1864 Mr. Smith established and took charge of a lumber yard at Detroit for the disposition of a part of the product of the Flint mills beyond the power of the local trade to absorb, and this business he still continues. Mr. Smith is a native of Dartmouth, Mass., and in early days was Mr. Crapo's assistant for about fifteen years in the city offices held by that gentleman in New Bedford, coming west with him in 1858. As confusion arose through there being several others of his name at New Bedford, Mr. Smith obtained an order from the probate court permitting the elongated cognomen by which he is now known. After leaving Mr. Crapo's employ in the city offices of New Bedford, he engaged in the oil business in that city, and at Rochester, N. Y., and from 1855 to 1857 at Albany, N. Y., in the latter year closing out the oil business and in 1858 again entering the employ of Mr. Crapo at Flint, Michigan.

CHAPTER X.

THE SAGINAW VALLEY.—EARLY MILLS.—DEVELOPMENT OF THE LUMBER INDUSTRY.—DISCOVERY OF SALT AND ITS DEVELOPMENT.

THE history of Saginaw Valley practically begins with 1834 when the first saw mill was erected by Harvey Williams who, (for his brother Gardner Williams) purchased and set up one of, if not the first stationary steam engine in the State of Michigan, being the one mentioned in connection with C. C. Trowbridge, J. K. Dorr, and others in Detroit. Gardner Williams in 1827 located in the Saginaw Valley, his brother Harvey joining him in 1834, settling at Saginaw City, where they commenced the erection of a steam saw mill on the river bank near the foot of what later was known as Mackinaw street. This mill was down to later years known as the "Williams" mill, being rebuilt and modernized from time to time by George F., William A. and S. B. Williams, sons of Gardner Williams. Settlement for farming purposes had followed the establishment of a fort by the government at Saginaw City in 1820, while yet few were the adventurous souls who dared the hardships of this practically unknown region, for many subsequent years. In 1835 the mill of Gardner Williams was ready to run, and now his brother Ephraim S. became connected with him. The mill was a single gate saw driven by a small engine, of 6-inch by 48-inch stroke, formerly used in the steamboat Walk in the Water, the first steamboat on the lakes, and was calculated to cut about two thousand feet of one inch boards per day of twelve hours. This mill was also provided with a run of stone for gristing. "Uncle Harvey" Williams was an excellent blacksmith and a good millwright, while being at least a fair machinist, and he personally forged the main part of the iron work of the mill, bringing it from Detroit when ready for his use. Notwithstanding the fact that the Webster House, for many years the leading "tavern" of the valley, was erected some considerable time subsequent to the date when the mill was erected, the lumber used in its construction was brought by vessel from the Detroit river, for what reason is not known. It has been claimed that the Williams mill was the first steam mill erected in the State, but this claim may be challenged both by the Trowbridge mill at Detroit (1832) and a mill erected at St. Joseph, on the west side of the State during the same year (1832) and as well the mill of Doctor Justin Rice at Port Huron, elsewhere mentioned as of 1832-3. Harvey Williams built a mulay mill for Ephraim Williams in 1837, on the east bank of the river, which in 1849 was followed by a mulay mill which became popularly known as the "Emerson" mill, from coming into possession of "Curt" Emerson, for some years a merchant of Detroit, who visited the valley in 1839 but did not become a permanent resident until 1846 when he, with — Eldridge purchased the Ephraim Williams mill from Samuel Atwater who had become its owner. Eldridge & Emerson in 1849 shipped the first cargo of lumber out of the Saginaw Valley, it being all "clear" stuff and consigned to C. P. Williams & Co., at Albany, New York. While the Gardner Williams mill was the first to run by steam, it must by no means be forgotten that in 1830 Leon Trombly brought whip sawed lumber from Detroit to "Lower Saginaw" for the completion of a dwelling, the rough frame for which was hewed on the spot, while the boards and finish, costing eight dollars per thousand at Detroit, were subject to a freightage charge of eight dollars more, the building not being completed for two years. As late also as 1835 Joseph Trombly found it necessary to import lumber from Detroit in boards and siding for the completion of the "Center House" (still standing) at Lower Saginaw (now Bay City). In 1835 also Judge Albert Miller who died at Bay City in 1894, constituted himself a portion of the motive power in a "pit saw mill," and it was claimed by the Judge, that himself in the pit, with Charles A. Lull or Joseph Busby on top, constituted the mill which sawed the first lumber ever sawed in the Saginaw Valley, and this was for a house for himself.

Historical data regarding the period from 1840 to 1850 is extremely meagre, but may safely be passed over as possessing few features of importance beyond the fact that mills quickly followed the venture of Mr. Williams and his successors as recorded above, and that of Albert Miller of which we shall take occasion to speak presently. In 1854, however, we gather from statements published in that year, and credited to the Hon. John S. Estabrook, that there were in operation on the Saginaw river, twenty-seven saw mills, with nine others in course of erection, all of which were steam mills. The list and capacity of each per season was as follows: Millards & Sweet, 3,000,000 feet; Daniel Johnson, (Fishers) 1,500,000; (this mill had also a saw exclusively employed in the manufacture of lath, but no statistics of capacity are available). Gardner Williams, 2,000,000; do, 1,500,000; Emersons, 4,000,000; Gallagher, 1,500,000; Whitney & Higginson, 3,000,000; Edmonds, 1,500,000; Westervelts, (Carrolton) (new) 3,000,000; Johnsons, (gang Zilwaukee) 7,000,000; Johnsons, (Shepards) (near Zilwaukee, burned 1857) 3,000,000; Bangor Mill (Whitney Thompson & Coit 1850-1) 5,000,000; Martin Watrous & Southard Co., (1853) 3,000,000; Russell (old mill of Albert Miller, 1837) 3,000,000; Russell (new) 1,500,000; Sidney S. Campbell & James McCormick, (1854) 1,500,000; E. Stanton (1853), 1,500,000; James Fraser & Ezra Catlin, (1848-9) 1,500,000; Fraser & Hopkins, (Dunlop) (1846-7) 3,000,000; Col. Henry Raymond, (1850) 2,-

500,000; John Drake, (1851-2) 3,000,000; William & Alexander McEwan, (1850-1) 3,000,000. In addition to these there were nine mills in course of construction, viz., Doctor Whiting (be ready in July); M. Corlass, (will not cut in 1854); John Pierson (late this season); M. Jeffers, (later Merrill mill) (nearly ready), Baughman & Partridge, (nearly ready) Rolefson & Co., (will run in July); Doty, (nearly ready); J. Vanston & Co., (ready in June); Moore & Vorce, (nearly ready). Adjacent to the river, and included in the "Valley" were several mills, viz.: On the Tittabawasse; Halsey's steam mill, 1,500,000 feet capacity; on Bad river, Cary's mill, 1,500,000, and Clark & Wisner, 3,000,000; on Swan Creek Gibson's (water mill), 1,500,000; on the Shiawassee river there were two water mills estimated to cut 8,000,000 feet. This made a total capacity for the thirty-seven mills then in commission tributary to the Saginaw river and finding market there, estimated at 77,000,000 feet per annum. There were upon the waters of the Cass river at this time Lull's steam mill, 1,000,000 feet; Hinckley & McLean, 1,500,000; Hurds, (water mill) 1,000,000; Watrous & Co., 1,000,000; Hoyt's, (at Birch Run) 2,000,000; Richardsons, (water) 2,000,000; North & Edmonds, (water) 3,000,000. On the Flint river at this time were, Blackmans (steam) 1,500,000; Seymour, (two water mills) 2,500,000; at Flint village and above were six steam and eight water mills of an estimated capacity of 10,000,000 feet per annum. These with the other outside mills specified, are properly included in the statistics of the Saginaw valley of that day, as their product was, for want of other conveniences for transportation, rafted down the river or hauled by team, to Saginaw for a market. This record includes a total of sixty-one mills in operation in 1854, with an estimated capacity for the production of 108,000,000 feet of lumber per annum, and nine other mills in course of construction with an estimated capacity for cutting 20,000,000 feet, or a total sawing capacity in 1854 of 128,000,000 feet within the bounds of the Saginaw Valley; these mills were nearly all mulays, with a few gates and a few gang mills. As early as 1845 Gardner Williams took out the run of stones from the original mill built by him at Saginaw City, and with Samuel Shattuck built a water mill combining a saw mill and grist mill upon a creek of the Tittabawasse river, giving the name of Shattuckville to the locality.

While upon this point of the earlier history of the river and valley, we may recur to the experience of Judge Albert Miller, and here we may say that the obstacles in the way of mill building in the earlier days are difficult of comprehension to such as have had knowledge only of the improved facilities of a later day. The reader will remember that in earlier chapters reference has been made to the fact that it was not until 1824 that the President was authorized to appoint Commissioners to survey and mark a road from Detroit to Chicago. In 1827 an appropriation of $20,000 was made by Congress for the construction of this road within the boundaries of Michigan; this road was designed to open up the vast prairie country west of Lake Michigan, for at that time few indeed were they who would hazard the opinion that Michigan as a State (except in the southern counties) would ever present inducements to settlers, unless they were Indians or refugees from justice. Its reputation for fever and ague, marshes and snakes, especially that section which lay north of the hardwood belt, was firmly established. In 1827 also the President was authorized by act of Congress to lay out and open two roads, one from Detroit to Saginaw Bay, and one from Detroit to Fort Gratiot, the former leading to the heart of the Indian country, the latter for frontier protection in case of war, the appropriations for the cutting out of these roads being the munificent sum of $1,500. In 1832 an appropriation of $3,500 was secured for a road from Detroit through Shiawassee county to the mouth of Grand river. These roads with Indian trails constituted for many years the only available method of travel from the east into the Saginaw Valley region.

Judge Miller had taken up his residence in the valley in 1834 settling near where the Tittabawassee empties into the Saginaw, where he contemplated becoming a farmer, but being struck with the appearance of a piece of land at what was later known as Portsmouth, now the seventh ward of Bay City, and foreseeing a value to the pine timber which must find shipment by vessel if, as he believed, its manufacture should ever reach the large proportions which they held in his optimistic vision, he with B. K. Hall and Cromwell Barney, decided to build a saw mill at that point, and Judge Miller started east in search of machinery. Visiting Detroit and the south and west shore of Lake Erie to Toledo, and thence to Sandusky, without hearing of anything suitable, but learning of a steam saw and grist mill at the mouth of the Huron river, Ohio, he proceeded to that place and purchased the outfit of a party who found the country too new for profit, in milling and had decided to return to the civilization of the east. It was near the close of navigation (1836) and vessel freights were based upon a rate of two dollars and a half per hundred pounds from Buffalo to Detroit. Mr. Miller caught a passing vessel which he chartered to take the machinery to Detroit, which was as far as her Captain was willing to venture, and arriving there, Mr. Miller was compelled to purchase a vessel for its farther conveyance to Saginaw. As general merchandise was a necessary part of the scheme, and a stock of goods would be nearly as essential in such a new country as the mill itself, Mr. Miller purchased such a stock as was suitable, and loaded his vessel; a man recommended by a friend was engaged as captain, and seeing the vessel set sail, Mr. Miller started on horseback through the wilderness, hoping and rather expecting to find the vessel had reached the river ahead of him, but on his arrival, and after patiently waiting until the formation of ice convinced him that he waited in vain, he again saddled his horse and traversed the half frozen forest trail back to Detroit, and thence to Port Huron, where he found that the vessel was frozen in, and that the captain had deserted her after stealing a large portion of the goods. If the mill was to be started in the spring of 1837, the only resource now left, was to hire teams to cart the machinery across the country, and this was done at an expense of fifty dollars per sleigh load, and in April, 1837, the mill began to cut lumber, for which there was no local market, and the historic panic which struck the country but a few months later, put an effectual quietus upon any hopes of money making with the mill, and as there was literally no market which would purchase clear lumber at a price which would even pay for its transportation, it was shut down. The mill at a later day was sold to James McCormick and his son James J. McCormick, who ran it until 1847 when the elder McCormick died. It is a mooted question whether the credit of shipping the first cargo of lumber from the river to the east, belonged to this mill or to the Emerson Mill at Saginaw, the McCormicks claiming to have shipped a cargo running sixty per cent. clear, in 1849, to Detroit, where it sold for eight dollars per thousand feet, one half cash, and the balance in eight and ten months. The mill continued in commission until 1857, when its boilers exploded and the wreck was never rebuilt.

In 1846 Hopkins, Pomeroy and Fraser built a mill on the river between Center and Sixth streets of the later plat of Bay City, on the site for many years, and still, occupied by the Gates & Fay mill. In 1843 Mr. Fraser built a mill on the Kaw-kaw-lin (Co-qual-lin) river, four miles west from the mouth of the Saginaw river, and six miles by road, at which was cut the first cargo of lumber which reached Chicago (1848) from this section, and which by reason of its superior quality, created quite a furor in that city, which by reason of the completion of the Illinois & Michigan Canal, was rapidly acquiring the drive and push which has since characterized it, and the character of that cargo was the means not only of inducing its purchaser, Mr. George Higginson, to engage in the manufacture of lumber in the valley, but was the means of opening up a trade with Chicago which in later years assumed large proportions. The Kawkawlin mills were later disposed of (1857) to O. A. Ballou & Son of Rhode Island, who ran them for many years.

In 1850 Alexander and William McEwan built a mill at Woodside, about half way from the Miller mill to the Bay, in which they were joined in 1851 by their brother John McEwen. This mill is in commission at this time, operated by John McEwan, Jr. In 1850 James Watson erected a mill near the foot of Eighteenth street, Bay City, and the same year Edward Stanton built a mulay mill at the foot of Seventh street; this was afterward for many years known as the Catlin mill, and was the only mill on the river which withstood the encroachments of advancing improvements, and remained a single mulay mill until its destruction by fire in 1876. In 1850 also Henry Raymond built a mill north of First street, which was in 1864 purchased by James Shearer of Detroit and was for many years in commission as the Shearer mill. In 1852 John Drake built a mill on the west bank of the river, and in 1853 John C. Baughman, Benjamin F. Partridge and Bela Hubbard built a mill below that of Mr. Raymond, which soon after passed into the hands of Samuel Pitts of Detroit (mentioned in connection with that city) who with his son Thomas Pitts and son-in-law, Thomas Cranage, formed the firm of Pitts & Cranage, and is still operating under the designation of Thomas Pitts & Co. In 1853-4 Reuben Moore of St. Clair and Voce built a mill on the west side of the river, afterward known as the Moore & Smith mill. In 1854 M. B. Doty erected a mill at the foot of Tenth street, which was afterward purchased and run for many years by William Peter, who about 1870 built a large mill at Columbiaville in Tuscola county, which he still operates. In 1855 B. F. Partridge built a mill at the foot of Twenty-fifth street, which afterwards passed into the hands of James Fraser, and was known as the Fraser mill, and at a later day as the Lewis, and still later as the McLean mill, having been purchased about 1873 by Seth McLean of East Saginaw. Mills were built at uncertain dates before 1860, at this end of the river by Thomas Whitney & Co., (afterward purchased by Taylor & Moultroup). Judge Sidney S. Campbell (and McCormick), W. L. Fay, (Fay & Grant 1863, Gates & Fay 1870), George Lord, and J. P. Whittemore (1854) (afterward the Keystone mill)., N. B. Bradley, H. N. Braddock (1854), Martin Watrous, Clark Moultroup & Brother, E. Stanton (afterward H. M. Bradley & Co.), Angus Miller (later Eddy, Avery & Co.), and Rust Bros. & Co.

In 1864 Henry W. Sage and John McGraw, who had been extensive operators in New York and Pennsylvania, and more recently in Northern Ontario, with the largest mills in the world (at that time) at Belle Ewart, Canada, erected what was for several years the largest mill in Michigan, on the west side of the river opposite Bay City, and laid the foundations for what has since become the thriving city of West Bay City. Up to this time the mills of the valley had passed through the evolution from the sash to the mulay, which was superseded in turn by the rotary, or as it was commonly called "the circular", and by this date nearly all the mills had discarded both gate and mulay, and the rotary with a few gangs, held undisputed sway, nearly all the mills using one circular of, in probably a majority of cases, four to six gauge, with a cutting capacity of about one thousand feet per hour. The Sage & McGraw mill comprised one mulay for siding down the large logs (which were then quite common, and too valuable to be slaughtered on a rotary, the width of whose cut was limited) one rotary, two slabbing gangs and two stock gangs of forty saws each, making a seasons cut of about 30,000,000 feet.

Previous to this time the rough edges of lumber as it fell from the saw were removed by a single circular saw on a table at the side of the mill, which was operated by men who walked its length, returned, turned the board over and repeated the operation with each individual piece. In the summer of 1863 William H. Taylor, a manufacturer at Saginaw City conceived the idea that the circular saw was capable of cutting more than one thousand feet per hour, and entered into a wager with George Williams, his neighboring manufacturer, that he could cut double that quantity. On a given day a test was made in the presence of a large number of mill men, who were incredulous, and came to be witnesses of Taylor's discomfiture, but in less than an hour saw the mill piled full of unedged lumber which the sliding table could not take care of. The saw had cut more than four thousand feet in the hour and had demonstrated that its capacity was limited only by an ability to edge the lumber and remove it from the mill. At once inventive genius was set at work, and in a short time Thomas Munn of Bay City introduced a double edger table, in the subsequent improvements of which the limit of the circular saw has not yet been ascertained, although 24,000 feet per hour has been attained in a Texas saw mill cutting southern long leaf pine.

It is but just to state that the claim of Mr. Munn to be the original inventor of the double edger is disputed by several other parties who claim to have originated this useful and indispensable machine about the same time. To whomsoever belongs the credit, certain it is that it was at once received into public favor, and within a year or two was to be found in nearly every mill of the country where circulars and gangs were in use.

About 1869-70 Sage & McGraw dissolved partnership, and John McGraw erected a still larger mill at the extreme southern limits of Portsmouth, now the Seventh ward of Bay City, which had a record for sawing over two hundred and fifty thousand feet per day, with two circulars, two pony gangs and two stock gangs. This mill took fire in August 1872, but was rebuilt upon a yet larger scale, and was again burned in 1886, and not again rebuilt. This mill was about 1882-3 sold to and operated by Columbus C. Barker, who later operated a mill at Wausau, Wisconsin, and has for some years past operated a mill at Bay City near the location of his former mill.

In 1876 Arnold, Folsom & Co. purchased a mill erected by John Fraser at Woodside, the then northern limits, afterward the First ward of Bay City, and this also was of the more modern type of saw mill development. About 1856-7 Campbell & Mee erected a new mill on the river near the foot of Twenty-third street, afterward purchased by James J. McCormick, and in this mill McCormick about 1858 tried the first experiment (of which we can learn) in the use of a band saw for the manufacture of lumber from the log, which proved a failure from the multiplicity of wheels employed to secure a proper tension, and the discarded saw for many years adorned the fence in front of the McCormick residence. It was not until about 1883-4 that the possibilities of the band saw began to gain recognition in the saw mill world, although it was exhibited as a practical machine at the Centennial exposition of 1876 by J. F. Hoffman, a manufacturer of hardwoods at Fort Wayne, Indiana, who may fairly be called the father of the practical band saw mill, which in a highly perfected condition has since found general acceptance in the saw mill world.

Recurring again to the mill erected by Gardner Williams at Saginaw City, and which in a modernized condition from frequent rebuilding (having burned twice) is still in commission and operated by Bliss & McAuken; we may say that Gardner Williams was the undoubted pioneer of the lumber manufacture of the entire region north and west of the Detroit river. Harvey Williams was without doubt the builder of the first steam engine used for saw mill purposes in the State, being the one which he built for C. C. Trowbridge and J. K. Dow at Detroit, elsewhere mentioned. He was a blacksmith by trade and a recognized genius, just the character of man needed in a new country; a man who could turn his hands to anything, ready of resource in any emergency. While living in Detroit prior to 1834 he took a contract for supplying the young city with water through a three-inch wooden pipe, using a small engine and boiler at the river, and receiving the munificent compensation of $500 per year.

The mills of Gardner and Ephraim Williams at Saginaw were for several years of more than ample capacity to supply the wants of the few settlers who had already arrived and made homes for themselves in the valley,albeit a cut of two thousand feet per day by each was considered excellent, if not remarkable work, and required the engine of six-inch bore and forty-eightinch stroke (afterward replaced by a better proportioned engine) to be run to its full capacity, with its ponderous sash or gate rising and falling with every revolution of the twelve-foot fly wheel to which it was directly connected, but when the Emerson mill with an engine of ten inch bore and fourteen inch stroke began its operations, it was confidently expected that its capacity was fully equal to any demand for lumber which the next quarter century would bring forth. How little was it comprehended that within the lifetime of Mr. Williams' sons, the demand upon, and the production of lumber in the Saginaw valley would reach the enormous aggregate of more than one thousand million feet, as was the case in 1882, or that within the period of forty-four years embraced in the years intervening between 1851 and 1895 the lumber production of the Saginaw valley would reach the enormous aggregate (of a reported cut) amounting to 23,000,000,000 feet of lumber, and 7,463,615,410 shingles, which if reduced to lumber and to the aggregate is added a volume of lath lumber and shingles of which no reliable statistics are available, we shall find that it is a safe estimate to place the lumber production at thirty billion feet (30,000,000,000), while the State at large was called upon to produce in single years as high as 6,000,000,000 feet and an aggregate production since the slaughter of the forests began, practically within the thirty-seven years embraced in the period dating from 1860 of fully 150,000,000,000 feet.

(Verifying our figures of the production of the Saginaw valley we find a reported cut of lumber for each year since 1851 aggregating 23,110,113,659 feet, and estimate that the previous production was not less than 775,000,000 or an aggregate of 23,885,113,659 feet, to which adding 1,364,821,723 feet as the equivalent of 7,000,000,000 shingles and we arrive at a grand aggregate of 25,250,000,000 feet beside the factor of lath, pickets and "unreported." Accepting the estimate of good judges that fully twenty per cent may be added for logs, timber and lumber not included in the available reports and an estimated production of 30,000,000,000 output is by no means excessive).

Verily who can comprehend the vastness of an industry which exceeds in its aggregate, and fairly overshadows all competitors among the many extensive industries of this goodly land, and adds to the circulating wealth of the nation no less than one billion dollars per annum. (See Census report of 1890, which places the value of the timber (forests) products of the nation at $1,035,000,000, for the census year).

Previous to 1846 the manufacture of lumber was on but a very small scale, and indeed with the shipments heretofore mentioned, from the Emerson mill in 1849, and by the McCormicks in the same year, and including the shipment by Mr. Fraser to Chicago in 1848, it is doubtful if any lumber was marketed beyond the local demand, which was very limited for many years, as the increase in population was extremely slow, as is evidenced by the fact that in 1860 the population of the different cities had reached but a minimum of the extent to which they have since attained, East Saginaw being then in the lead with a population of 3,000, Saginaw City 1,250, and Bay City 700.

As before stated upon the authority of Hon. John S. Estabrook there were in 1854 twenty-seven mills in operation on the river, with nine in process of completion, in addition to those enumerated upon tributary waters, and while no doubt the statistics of that early period are open to criticism, the best data attainable places the lumber production at 92,000,000 feet in 1851, reaching the one hundred million mark in 1854, ranging from these figures to 125,000,000 feet in 1860, and remaining at about those figures until 1864 when with a jump of 81,000,000 from the figures of the previous year, they reached a volume of 215,000,000 and from this time the progress was marked by leaps of from seventy-five to one hundred million feet per year, reaching a culmination of 1,011,274,605 feet in 1882, from whence the decadence of manufacture is marked, down to a sum total of 335,683,083 feet in 1895.

An important adjunct to the forests trade and production of the valley is to be noted in the development and decay of the square oak timber and stave trade which for several years constituted one of the more important industries of the valley; the shipments of square timber for a given term of years were as follows: 1869, 765,000 feet (cubic); 1870, 1,105,000, 1871, 1,982,000; 1872, 560,000 feet of oak and 700,000 feet of square pine; 1873, 4,234,920; a total for the five years of 10,647,000 feet cubic of oak; equal to 127,764,000 feet board measure, together with 8,400,000 feet of square pine equal to 100,800,000 feet board measure. This trade was practically at an end by 1879, in which year the shipments dropped to 795,210 feet (cubic) equal to 8,542,520 feet board measure; the total footing of production and shipment from 1869 to 1879 being 17,491,855 feet cubic, equal to 210,002,260 feet board measure. This timber rated high in the English, French and German markets to which it was shipped via Montreal and Quebec, and was valued at about $200 per thousand feet (cubic) on vessel at Saginaw. During this period also the stave trade was at its height, and included barrel, hogshead, puncheon and other oak staves for which eastern and foreign markets made demand. The extent of this branch of the forestry industry in the Saginaw valley is illustrated by the following figures of shipments in the years named, viz: 1860 to 1865 inclusive, 3,000,000; 1866, 3,500,000; 1867, 4,919,000; 1868, 5,804,000; 1869, 3,720,000; 1870, 5,698,000, 1871, 3,820,000; 1872, 8,663,000; 1873, 9,568,898; 1874, 4,623,068; 1875, 3,113,721; 1876, 6,641,209; 1877, 4,970,859; 1878, 3,372,426; 1879, 4,221,731; a total for the period named of 72,607,070 pieces of the different classes of staves, the value of which seems to have ranged from $30 to $75 up to about 1872 and to have averaged about $50 per thousand for the balance of the period named, beyond which period no reliable data is available, and while some small shipments were made subsequent to 1879, they were of so minor a character and volume as to cut but little figure, this may also be said of square oak timber, shipment of which ceased about 1879, while yet a large demand arose for local use in the development of the enormous ship-building industry which about this time was inaugurated, and which created a demand for all the oak which could be found tributary to the valley whether by team, rail or water transportation, but of the volume of which no data is obtainable. In 1873 the records of the day show a demand for hoops, principally of oak, shipments of which are noted to the extent of 13,379,000.

In connection with this question of square timber and staves as an adjunct of the dominant industry, the new element introduced into the trade of the valley through the discovery that there were extensive salt deposits underlying this region, makes pertinent the mention of the fact that in 1860 the manufacture of salt was inaugurated by the East Saginaw Salt & Lumber Co., and the first year's statistics show a production of four thousand barrels, which in the following year was increased by the erection of other plants to 125,000 barrels, and in 1862 to 243,000, and from this time on, the manufacture increased so rapidly that the Saginaw valley became a most important element in the salt production of the nation, the manufacture extending a few years later to the west side of the State, and aggregating in 1895 a total of nearly 4,000,000 barrels, the manufacture in the Saginaw valley reaching 2,055,940 barrels as early as 1879. This trade created a necessity for a vast amount of pine barrels, in the manufacture of which the slabs and other of the larger offal of the mills was utilized in the manufacture of staves and heading, while the smaller and coarser attained a hitherto unknown value as a fuel for making the steam used in the reduction of the brine, which was found in a sandstone rock of which stratas found at a depth varying from 600 feet to 2,100 feet, were reached by artesian wells, yielding abundant supplies of brine of a salomoter test of about ninety degrees, (one hundred degrees being the point of saturation). In the manufacture of salt barrels the hitherto neglected basswood was also utilized as a more satisfactory heading, while the still more neglected soft elm became valuable for the manufacture of hoops, thus practically introducing two new elements of profit in timber which had formerly been esteemed of little

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or no value. Of this production the statistics of 1873 are a fair index of the conditions which have prevailed largely to the present time, and include 15,896,743 pine staves, 5,892,320 headings and 8,946,250 hoops as the product of that year in the Saginaw valley.

As previously mentioned H. W. Sage of New York and John McGraw of Ithaca, New York, in 1865 began the erection of a mill on the river bank opposite Bay City, which was for some years considered the largest mill in the country, its dimensions being 80x140 feet on the floor, and its equipment consisting of one mulay, two circulars and two gangs, whose yearly production for several years averaged 30,000,000 feet, one specimen day being credited with a cut of 370,797 feet. This mill with yearly remodeling ran until 1893 when its timber resources having failed it went out of commission. The erection of this mill was the foundation for the village of Wenona, now the thriving and populous city of "West Bay City."

The partnership of Sage & McGraw terminating in 1869, Mr. McGraw erected at Portsmouth (now Seventh ward of Bay City) a still more extensive mill than that at Wenona, and this mill was for several years credited with a cut of 25,000,000 to 30,000,000 feet per year. This mill burned in 1872 and as before stated a still larger mill was erected which, until its destruction by fire about 1886 was credited with a yearly cut of 30,000,000 to 40,000,000 feet per season.

Diverging for a moment to the consideration of an important side issue of the Saginaw valley development, attention is called to the fact that at this time the Saginaw river is noted for being one of, if not the most important point for ship-building on the chain of lakes, the immense yards of West Bay City being noted for the number and character of the many large vessels, both of wood and steel which for many years have been built at that point. So early as 1870 this industry had assumed large proportions, principally at East Saginaw, while in 1873 the yards of the valley, now located principally at West Bay City, are credited with the construction of 23 vessels aggregating 8,603.54 tons measurement ranging from a schooner of 1,099.37 tons to a tug of 30 tons, the list including propellers, schooners, tow barges and tug boats. In the later development of the ship building industry it became necessary to add facilities for the construction of vessels of steel and iron and in this department West Bay City holds a position of high prominence at the present day, and is famous for the size and number of lake craft which are annually launched from her shipyards and in the construction of which an enormous amount of timber and iron is utilized.

Tributary to the Saginaw valley is a vast extent of originally well timbered country, penetrated not only by the Tittabawasse, Flint and Cass rivers with their several branches, but by the Flint & Pere Marquette, Saginaw & St. Louis, and Jackson, Lansing & Saginaw (Michigan Central) railroads, on which about 1873 a system of rail transportation of logs was established, which enabled large tracts of timber to be reached, which from their remoteness from floatable streams had not hitherto been available. The Flint & Pere Marquette in 1879 hauled 12,271,000 feet of logs to the river mills. (See chapter on railroads.) Upon these lines of railroad many small villages sprang up, in each of which were one or more saw mills working in timber more immediately adjacent to the locality. The village of Midland, located on the Tittabawasse river, and which was also a prominent station on the Flint & Pere Marquette railroad, had in 1873, 27 mills with an aggregate yearly capacity of 58,000,000 feet of lumber, 75,000,000 shingles and 3,367,000 lath, and the villages of Clare, Farwell, Evart and Hersey, together with Averill, Sanfords, North Bradley, Coleman and Loomis, were of more or less importance as lumber centers, pouring their lumber, shingles, hoops or staves over the railroad to a shipping point at East Saginaw or Bay City. So also the St. Louis & Saginaw Valley railroad brought the products of the forests of Gratiot and Montcalm counties from the mills at Hemlock, Porters, Breckenridge, St. Louis, Alma and Elm Hall, and the Jackson, Lansing & Saginaw railroad accommodated the mills of St. Charles and Chesaning on the south while its northern extension reached into the forests of Bay, Ogemaw, Roscommon, Crawford and Otsego counties, subsequent extensions penetrating Cheboygan county to a ferry crossing at Old Mackinaw. The statistics of 1872 show the productive capacity of the mills of these lines of railroad to have been as follows: Flint & Pere Marquette, 50 mills, which cut 133,000,000 feet of lumber, 9,000,000 lath and 230,100,000 shingles; Jackson, Lansing & Saginaw road, north, 12 mills, capacity 70,000,000 feet of lumber and 10,500,000 shingles. Saginaw Valley & St. Louis railroad 12 mills with a capacity for cutting 49,000,000 feet of lumber and 28,000,000 shingles. In this year the capacity of the "Shore mills" north of Bay City was put down at 42 mills running 17 mulay, 48 circular and 20 gangs of saws, capable of producing 307,000,000 feet of lumber, with an actual cut for 1872 of 133,700,000 feet of lumber and 111,500,000 shingles; men employed, 1,411; capital invested, $7,725,000.

The published statistics of the Saginaw valley previous to 1869 are of a meagre and unsatisfactory character, but in that year George F. Lewis, editor of The Saginawian and Charles B. Headley of The Courier, published an annual statement from which we condense some salient figures, which will show the extent to which the trade of the valley had attained at that comparatively early day, and the limited comprehension of the statisticians as to its future possibilities.

> "The district treated of under the caption "Saginaw Valley," embraces all that portion of the State drained by the Saginaw river and its tributaries, the Au Sable and its tributaries, and Thunder Bay and its tributaries. These rivers are estimated to give an aggregate of 3,000 miles of log running streams on which it is stated that by a fair estimate 8,000,000,000 feet of timber is located as follows: Saginaw and the shore, including the Au Sable and tributaries, 5,100,000,000 feet; Harrisville, 30,000,000 feet; Alcona, 70,000,000 feet;

Thunder Bay district, 2,800,000,000 feet, the value of which is set down at $120,000,000 if manufactured into boards at now prevailing prices."

Conservatism of this estimate and in fact the limited appreciation of even these well informed statisticians at that early day of the timber resources of this district are shown in the fact that the lumber production of the Saginaw valley alone from that date, to and including the production of 1895 aggregated 18,622,172,743 feet, according to the yearly reports of the work of the mills, as ascertained from year to year, while the total recorded cut from 1851 to 1895 aggregated 25,249,935,382 feet, to which as a conservative estimate may be added an amount of timber cut into shingles, square timber and rafted logs, otherwise unreported, which will safely add twenty per cent. to the figures, bringing with the production previous to 1851 the sum total of timber cut on the tributaries of the Saginaw river alone to fully 30,000,000,000 feet.

Returning to the Headley & Lewis statistics:

"The total number of mills in the Saginaw valley in 1869 is stated at 83; with 61 mulay saws, 77 circular saws and 49 gangs, with a capacity for cutting 626,884,841 feet per season, together with a yearly production of 50,000,000 lath. Capital invested, $3,754,000; men employed in mills, 2,909. A list of the firms engaged in manufacturing lumber and estimated capacity of their mills names the following:

East Saginaw—J. L. Wicks & Bro., 1 mulay, 1 gang, capacity for cutting, 8,000,000 feet; S. H. McLean, 1 circular, 1 gang, 9,000,000; M. E. Garrison, 1 mulay, 2 circulars, 1 gang, 11,000,000; Nelson Holland, 1 mulay, 1 circular, 4,000,000; Jesse Hoyt, mulay and gang, 4,000,000; Charles Lee, mulay and gang, 3,000,000; Warner & Eastman, circular, 4,000,000; G. C. Warner & Co., 2 mulays and gang, 6,000,000; Sears & Holland, mulay, circular and gang, 15,000,000; E. Briggs, mulay and gang, 4,500,000; Chapin, Barber & Co., 2 circulars, 7,000,000.

Saginaw City—A. W. Wright & Co., 1 mulay, 2 circulars, 3 gangs, 24,500,000; Geo. F. Williams & Bros., 1 mulay, 2 circulars, 10,000,000; A. W. Thompson & Co., mulay, circular and gang, 10,000,000; Barnard & Binder, mulay, circular and gang, 12,000,000; Green & Hardin, circular and gang, 10,000,000; Heather & Allison, circular and gang, 10,000,000; Swift & Lockwood, 2 circulars, 7,000,000.

South Saginaw—Curtis & Corning, mulay and circular, 4,000,000; Rust & Ingledoe, mulay, circular and gang, 9,000,000; Ann Arbor Salt & Lumber Co., circular, 4,000,000; Bundy & Lowman, mulay and circular, 5,500,000; Cromwell & Co., circular, 3,000,000.

In adjoining villages, practically a part of East Saginaw and Saginaw City, were the following:

Florence—Shaw & Williams, mulay and two gangs, 10,000,000; Merrill & Co., two mulays and gang, 7,000,000; Haskin, Martin & Wheeler, mulay and circular, 5,000,000; Grant & Taylor, mulay and circular, 4,500,000.

Carrollton—S. H. Webster, circular and gang, 8,500,000; Elisha C. Litchfield, mulay and two circulars, 7,000,000; T. Jerome & Co., mulay and circular, 5,500,000; E. F. Gould, mulay, circular and gang, 10,000,000; Rochester Salt & Lumber Co., mulay, circular and gang, 10,000,000.

Zilwaukee—Rust, Eaton & Co., two mulays, one circular and two gangs, 18,000,000; A. T. Bliss & Bros., one circular and gang, 7,000,000.

Crow Reserve—Oneida Salt & Lumber Co., one mulay, one circular, two gangs, 10,000,000.

Willow Island—W. R. Burt & Co., one mulay, one circular, two gangs, 20,000,000.

St. Charles—C. S. Kimberly, one gang, 3,000,000; Gage & Green, one gang, 4,500,000; Freeman & Martin, one mulay, one circular, 6,500,000.

Midland—John Larkin, two circulars, 7,000,000; S. Sias, one circular, 4,000,000.

Bridgeport—C. A. Lull, one circular, 1,000,000.

Buena Vista—New England Salt & Lumber Co., one mulay, 2,000,000.

County mills tributary to the valley, 8,000,000.

The above comprised all the mills at the upper or south end of the river, those of St. Charles, Midland, Bridgeport, Buena Vista, etc, while somewhat removed, shipped their product from the Saginaws and are therefore enumerated in connection with them.

At the north end of the river in Bay county were the following named mills:

Bay City—Gates & Fay, one mulay, one circular, 5,800,000; H. M. Bradley & Co., one mulay, one circular, 6,000,000; William Peter, two mulays, one circular, 7,500,000; N. B. Bradley & Co., one mulay, two circulars, one gang, 12,000,000; Watson & O'Brien, two circulars, 7,000,000; Eddy, Avery & Co., one mulay, two circulars, 9,000,000; James McCormick, one mulay, one circular, 5,000,000; Rouse & Fray, one mulay, one circular, 5,300,000; James Shearer & Co., one mulay, one circular, one gang, 10,000,000; Thomas Pitts & Co., one mulay, two gangs, 10,000,000; J. McEwan, one mulay, one circular, one gang, 10,000,000; Dolsen, Walker & Co., one circular, one gang, 10,000,000; Folsom & Arnold, one mulay, one circular, two gangs, 15,000,000; A. Rust & Co., one mulay, one circular, one gang, 9,000,000; Ames Bros., one mulay, one circular, 5,000,000; John Carrier & Co., one mulay, one circular, one gang, 9,800,000.

Portsmouth—C. F. Marston, one circular, 3,000,000; A. Stevens & Co., one circular, 3,000,000; Watrous, Southworth & Co., one mulay, one circular, 3,000,000; Albert Miller, one mulay, one circular, one gang, 11,000,000; Hitchcock & Dunham, one mulay, one circular, 5,000,000; Lewis & Peter, one mulay, one circular, 5,000,000; A. C. Rorison, one circular, one gang, 9,000,000; J. J. Parmlee, one circular, 4,000,000; Gardner & Buchtell, one circular, 4,000,000.

Wenona (later West Bay City)—H. W. Sage & Co., one mulay, one circular, two gangs, 25,000,000.

Bangor—Moore, Smith & Co., one mulay, one circular, one gang, 8,500,000; Hitchcock & Gibson, one mulay, 1,500,000; Taylor, Moulthrop & Co., one mulay, one circular, one gang, 11,000,000; Keystone Salt & Lumber Co., one mulay, two circulars, 8,500,000; E. C. Litchfield, one mulay, one circular, 4,000,000.

Salzburg—Huron Salt & Lumber Co., one mulay, one circular, 5,000,000; Brooks & Adams, one mulay, one circular, one gang, 12,000,000.

Stone Island—Stevens Scheller, one mulay, one circular, 9,000,000.

Kawkawlin—D. A. Ballon & Co., one mulay, one circular, two gangs, 13,000,000.

As compared with mills of the present day, the cut in 1869 of the mills enumerated above, was exceedingly small, but it will be noticed that the day of the mulay saw had not yet passed, while not a single sash (gate) mill of the former times is noted. The capacity of the circular saw also, had not as yet been comprehended, as is shown by the small cut of 3,000,000 feet in several of the mills, and here it may be said that but a few years later, the mulay was wholly displaced for the circular, the daily capacity of which was raised to 60,000 and as high as 80,000 feet, while individual cuts of 100,000 feet, and in one or two instances as high as 200,000 feet per day has been reached. After 1885 at many mills in the county at large, (and the Saginaw mills were not slow in appreciating its benefits) the band saw superseded the circular, which is now looked upon as a bygone appliance, the advantages of the band saw consisting in equal rapidity of work, with a twenty per cent saving of timber through the use of a thinner saw than can be used with an upright or circular. The chief advantage of a gang of saws, consists in the thinness of the saws used in gangs of from thirty to sixty saws, cutting up an entire log in one operation. Besides these advantages the modern saw mill has added the double edger for trimming both edges of a board at once; "shotgun" feed for the more rapid propulsion of the carriage; live rolls for carrying off the lumber as it drops from the saw or edging table and trimming tables for cutting off long or defective ends, with slash saws for cutting the slabs and edgings into short lengths. In many mills a machine known as the "hog" is used for grinding the edgings into chips, in which shape conveyors carry this with saw dust and other offal directly into the furnace of the boilers, where it is utilized as fuel. In earlier days, and still, at many points, the slabs, edgings and offal were utilized in making docks, or at many points, and almost wholly at inland mills, it was conveyed into huge brick and iron furnaces, (or destroyed by open fires), which from the intense heat created by their burning, were euphoniously denominated as "Hells." At points where salt manufacture is combined with the saw mill, this hitherto worthless product was after about 1864, utilized to the fullest extent as fuel, and in place of an expense, becomes a medium of profit in the cheapened manufacture of salt.

To illustrate the extent of the salt production of Michigan, and its value to the lumber industry, the entire production being a direct adjunct to lumber manufacture, in the utilization of the otherwise useless waste of the mill, it is only necessary to add a few facts concerning its inception and development. The first salt produced as a commercial factor was by the Saginaw Salt Co. in 1860, under the impetus of a law passed at a preceding session of the State legislature, offering a bounty of five cents per bushel upon all salt manufactured in the State. The abnormal development of the industry during the immediately succeeding years, led to a repeal of the law in 1864, but the value and profit of the manufacture had become so manifest, that a bounty was no longer a necessity to ensure its continuance. In 1860 4,000 barrels were manufactured; in 1861, 125,000 barrels; in 1862, 243,000 barrels; in 1863, 466,000 barrels were reported, and in 1864, 529,000 barrels. The figures remained about the same until 1870, when they had risen to 646,576 barrels, and with a steady increase from year to year, the production in 1879 had reached 2,055,940 barrels. These figures were rapidly increased with the development of the field in the western part of the State, until the official report of 1895 gave the following figures as the salt production of that year in the various salt fields of the State. Saginaw county, 479,887 barrels; Bay county, 573,960 barrels; Huron county, 24,860; St. Clair county, 463,094; Midland county, 27,275; Iosco county, 97,528; Manistee county, 1,318,139; Mason county, 531,542; Wayne county, 13,077 barrels, a total for the year of 3,529,362 barrels, all, or nearly all, of which was produced through evaporation by steam obtained by the burning of waste products of the saw mill. The statistics of 1897 present an increased volume of production in the gross, but the decadence of the lumber industry, and its ability to supply the necessary fuel is marked in the reduced volume of salt produced in some localities, while others whose timber supply is still abundant, have increased their salt output. The figures for 1897 are as follows, viz.: Manistee, 1,827,427 barrels; Bay county, 340,894; Saginaw, 284,337; Mason, 522,324; St. Clair, 297,064; Wayne, 274,410; Iosco, 42,231; Midland, 34,056, a total of 3,622,764 barrels, while the quantity in bins unpacked, added nearly 100,000 barrels to the sum total.

Hon. Gardner D. Williams.—History shows Gardner D. Williams to have been the first man to build a saw mill and to lay the foundation for Saginaw's great industry.

The family of Williams originated in Wales, but its descendants came to America in 1638, eighteen years after the Mayflower, and Robert Williams and his successors for five generations form an important part of the history of Roxbury, Mass. Oliver Williams, a descendant of Robert and father of Gardner D. and Ephraim S. Williams, settled in Concord, New Hampshire, about 1794, where in 1804 Gardner D. was born September 4th. In 1807 Oliver sought the west and settling at Detroit, became the leading general merchant of the northwest, his stock of goods at one time inventorying $64,000, something unheard of on the sparsely settled frontier.

In 1811 he built the sloop "Friends Good Will," of whose size we have no knowledge, but with it he visited the military post at Mackinaw, and was chartered by the government to go to the fur trading station at the mouth of the Chicago river, and load ninety-nine packages of furs belonging to the government, increasing his cargo, by a large quantity of fur-purchased by his own agents. About this time the war broke out and on the return voyage, approaching Mackinaw, he gladly welcomed the American flag, which he saw floating over the fort. With no suspicion that during his absence the fort had been captured by the British, and that the flying of the flag was but a ruse to prevent his passing the harbor, he sailed right into port and cast anchor, only to find that he had placed his vessel and its rich cargo in the hands of the enemy, which in order the more fully to carry out the deception and allay any suspicion, had clothed its sentries in the uniform of the American troops. Both vessel and cargo were at once confiscated by the British, and the loss was never made good to him by either government. The vessel was at once placed under British colors and under the name of "The Little Belt" formed one of the fleet which was later captured by Commodore Perry in the celebrated battle of Lake Erie, which restored Amerisupremacy upon the great lakes.

Oliver's family did not join him at Detroit until November 15, 1815, from which date their residence continued until 1819, when he removed to Silver Lake in Oakland county, from which place in 1827 Gardner D. and his brother Ephraim went to the new settlement in "Sahganaw," and engaged in the fur trade for the American Fur Company. In 1835 they decided to build a saw mill at that point, and summoned their uncle, Harvey Williams, then a machinist and blacksmith at Detroit, to their aid. The mill was located at the foot of what later was known as Mackinaw street in Saginaw City, and was of the ordinary style of gate mill, operated by an engine taken from the wreck of the steamer "Walk in the Water," the pioneer of steamboat navigation on the lakes, to which was attached a large fly wheel. The mill was of crude construction, like all mills of the day, the ironwork being forged out by Harvey Williams with the limited facilities afforded by the new country, and was run until about 1850, when it was remodeled, and in 1854 was destroyed by fire, at which time a new mill was already in course of construction, which in its turn was burned in 1874 and rebuilt with the modern devices which had at that time been introduced, and with many additions and modernizing is still operated by Bliss & Van Auken. Gardner Williams died in 1858, from which time until about 1889-90 the mill was operated by his sons George F., William A. and Stewart B. Williams, the former of whom was the leading man of the company; he died February 10, 1895, at which time William and Stewart were still living and operating a farm about six miles west of Saginaw. Ephriam Williams died in 1891.

Harvey Williams.—"Uncle Harvey" Williams was born at Concord, New Hampshire, in 1795, the son of Alpheus Williams, who died some time prior to 1815, at which time the widowed mother removed with her family to Detroit, where Harvey erected a blacksmith shop at the point near the Campus upon which the Russel House now stands. His business consisted at that early day of making axes, steel traps and repairs to the wagons and farm utensils of the settlers, and he soon found it necessary to add the manufacture of plows of cast iron, for the manufacture of which he erected a small cupola of capacity for turning out three plows per day, using charcoal as fuel. His work gave satisfaction and his trade rapidly increased, the demands upon him requiring an extension of his facilities, and the addition of a small machine shop. He set up the first steam engine ever used in the young territory elsewhere mentioned in the history of Detroit as having been put in a saw mill for C. C. Trowbridge and J. K. Dorr, but as to whether he cast the cylinder or procured it from outside, we have no means of knowing, although it is asserted that the last work done in the old shop was the construction of two engines for a small steamboat called the "Michigan." Uncle Harvey was of a speculative and ingenious turn of mind, and recognizing the need of a distributive water supply in the young village, set up pumps on the river bank and by wooden pipes to such extent as the contour of the land on the river bank would allow of gravitation, and with a water cart to the higher levels, inaugurated the first water supply system of Detroit. Late in the fall of 1822 he undertook a contract for transporting forty tons of military supplies to the garrison at Saginaw, and no doubt his accounts of what he saw, and his estimate of the future of that region were prime factors in inducing his cousins, Gardner and Ephraim Williams in 1827 to select Saginaw as the scene of their life's labors. Be this as it may, it remains that in 1834, when they decided to build a mill at that point, "Uncle Harvey" was sent for to take charge of the job, and under his supervision, and with his aid as a machinist, the first saw mill was put in operation, and as there was not an abnormal demand for lumber, a grist mill was added for the accommodation of the few settlers who raised corn and other grain. In 1836-7 he built a second mill for Ephraim Williams on the east bank of the river and ran it until the crash of 1837 put a damper on all business in the valley as well as throughout the nation. It was a much larger mill than the first mill mentioned, and was known as the "big" mill, for many years.

About 1842 Uncle Harvey moved onto the banks of the lake at Kawkawlin, where he established a fishery and fur trade. The waters of Saginaw Bay teemed with fish, and until 1865 held the reputation of yielding a trade second only to the fisheries of Newfoundland in importance. Speaking the Indian dialect, he became friendly with the Chippewa tribe, holding their confidence to a pre-eminent degree, and carried on a large business with them in the purchase of furs, which constituted their principal means of obtaining for them the coveted goods supplied by the "pale face," and the friendship thus formed continued until his death. In 1864 he removed from Kawkawlin to Saginaw City, where for many years he was an honored citizen and an oracle upon all events connected with the early history of the valley and indeed of the State, and while strictly speaking, not a lumberman, was so closely identified with the inception of the trade of the valley and State as to be fully entitled to this brief mention in a history of this most important industry.

Charles Merrill.—Among the more prominent of the lumbermen of Eastern Michigan and the

Saginaw valley, and among the older operators and manufacturers, was Charles Merrill, who was born at Falmouth, Maine, in February, 1793, and with ripening years engaged in the lumber business at Lincoln in that State, where he operated a saw mill for a series of years. In 1836 he visited Michigan, and became impressed with the extent and character of the pine resources of St. Clair county. His experience in Maine, and his perception of the value of the timber in the not distant future, led him to investments in some large tracts of pine lands in St. Clair county, which was as yet the only section of the State which had begun the development of the lumber industry. Leaving time to develop the value of his new purchases, he returned to his native State, but again came west in 1845 and permanently located at Detroit. He now began a series of investments in the pine timber tracts upon the streams tributary to the Saginaw valley, and in 1854 purchased a mill which had been erected in 1853-4 on the river bank opposite East Saginaw, by Michael Jeffers and O. M. Hyde, in which enterprise he was associated with Thomas McDaniels and E. G. Allen. The mill was rebuilt by the company, and with frequent rebuilding, overhauling and the addition of new and approved devices for the more economical manufacture of lumber, is still in commission, its various improvements making it one of the best mills of the Saginaw valley. Its production of lumber since it first came into the hands of Mr. Merrill may safely be stated at, and probably in excess of 300,000,000 feet of lumber. Mr. Merrill was also, in connection with Mr. Palmer, interested in a large mill at Muskegon, which after many years of successful operation and the cutting of not far from 150,000,000 feet of lumber, was in 1883 sold to the Montgomery & McGrath Co. of that city. First and last, Mr. Merrill could be accounted one of the largest owners of pine land stumpage, in the Saginaw valley, if not in the State of Michigan. It was the policy of Mr. Merrill to admit to an interest with himself and associate in the lumber and timber business, such faithful and competent men as his judgment told him could conduct his affairs with discretion. He supplied the means, while they devoted their time, experience and best energies to the carrying out of his plans. By this means he secured the valuable services of many men who have become wealthy through their connection with him, the advancement of his interests being at the same time promotive of their own prosperity.

Mr. Merrill was preeminently a man of business, taking little interest in politics or politicians, while withal intelligent in his citizenship. Although averse to holding office, he was a staunch Republican, and his influence was always consistent in the advocacy of those principles and measures which commended themselves to his conscientious judgment.

He was married in 1836 to Miss Frances Pitts of Maine, the issue being one daughter, now the wife of Hon. Thomas W. Palmer. Mr. Merrill died at Detroit in 1872, his wife having died one year previous. Mr. Merrill was one of the founders of the Unitarian church at Detroit, to which during his life he was a liberal contributor, not alone of dollars and cents, but of those kindly influences which caused him to be respected and loved. His death was universally regretted in the removal of a man of integrity and probity of character, enterprising in business, farseeing, and one who in the midst of his many activities, was not unmindful of the rights and interests of his fellow man, and of the community in which he dwelt.

The Merrill interests at Saginaw have for nearly forty years been in charge of Mr. Joseph A. Whittier, a gentleman who has in a preeminent degree been recognized as one of the leading lumbermen of the Saginaw valley, and one whose conservative views upon all matters connected with the lumber interests, and no less, in those which pertained to the growth and advancement of the city of Saginaw, have marked him as one of the most intelligent and influential residents of the valley. Mr. Whittier was one of the most active promoters in the formation of the Tittabawasse Boom Company in 1856, and continued an active interest in its operations to the end of its history.

The Rust Family.—No name has been more prominent in the history of the Saginaw valley than that of "Rust," the different members of the family having each and all been closely connected with its lumber industry.

Amasa Rust was a native of Connecticut, and was born June 19th, 1792, but while still in his boyhood his parents removed to Wells, Vermont, where, as he came to years of manhood, he took up the occupation of a farmer, and marrying Miss Charlotte Ward of that place, remained until 1837, raising a family of eight children, viz.: Aloney, David W., Amasa, Esther, Laura, Minerva, Ezra and John F., all of whom were born at Wells.

In 1837 Mr. Rust moved west and settled at Newport (now Marine City), on the St. Clair river of Michigan, where he again engaged in farming, his older sons, Aloney and David becoming sailors on the lakes, and in 1842 building the schooner "Vermont," a vessel carrying about 60,000 feet of lumber, a commodity the manufacture of which was assuming large proportions at the mouth of Black river (Port Huron), and along the St. Clair river, and gave promise of rapid extension. About 1846 the two brothers in connection with Capt. Samuel Ward, built a saw mill containing two mulay saws, at Newport, Capt. Ward, who was a prominent steamboat man of the river, furnishing the machinery. This mill was run alternate months by and for Capt. Ward, in sawing oak ship timber for the vessels which he had in course of construction, the Messrs. Rust running the alternate months on pine logs from Pine river, which empties into the main river at St. Clair, and was for many years a prolific lumber stream, although extending but a few miles into the interior. There was at this time a mill at Newport operated by Mr. Gilchrist, and soon after another was erected by Dr. L. B. Parker, which is still standing and operated as a stave factory. There was a mill at this time at Algonac owned by Abram Smith, and another operated by a Mr. Daniels. There were two or three mills at St. Clair, and several at Port Huron. The Rust brothers, Aloney and David, afterward lumbered on the Black river, emptying into the St. Clair at Port Huron, towing their logs to the mill at Newport, and about 1848 increased the capacity of their mill by the addition of a siding machine, upon which six inch cants from the mulay were rapidly cut up by a small rotary into one inch boards or clapboards. The average cut of the mill with this addition was about 3,000,000 to 4,000,000 feet per year, for which market was found in Ohio, and to some extent in Chicago, being sought as return cargo by vessels which by this time formed quite a fleet in the grain and provision trade between Chicago and the east via Buffalo. About 1856-7, the siding mill was remodeled by the addition of a large circular, for the cutting of fourteen and sixteen inch cants, boards of that width being in demand, and principally produced by the gang mills. About 1856 the brothers began building a saw mill at Salina, afterwards known as South Saginaw, and in this they were joined by their brother Amasa Rust and John Ingledoe, who had been connected with them in the Newport mill since 1849, and who now assumed charge of the Saginaw operations, being the pioneers of the family in active operations in the valley, although Aloney and David had acquired considerable timber land on the Tittabawasse and its tributaries, and as well on Grand river, the Muskegon and the Manistee waters as early as 1850, while Ezra, who worked on the steamboats on the lakes, sent his wages to them for investment in lands. In 1858 the timber resources of the Newport mill gave out, and the winter of 1858-9 found Aloney and David operating on the Pine river of Gratiot county, a tributary of the Tittabawasse. About 1859 Aloney and David W. took John F. into partnership, selling him one-third interest in their timber holdings in the Saginaw region, and in 1862 A. Rust & Co. built a large mill at Bay City, and shortly after the firm designation became John F. Rust & Co. and under this cognomen the extensive operations were subsequently conducted which were known to the public as the business of "The Rusts."

Aloney Rust was twice married, his first wife, Betsey McQueen of Newport dying about 1849, leaving two children, one of whom is the Hon. William A. Rust of Eau Claire, Wisconsin, the other being Mary, wife of F. W. Gilchrist, a prominent lumberman of Alpena. In the early "50s" Aloney was married to Miss Jane Luff of Newport (now a resident of Eau Claire), by whom he had four children, Aloney, Jr., Horace G. (deceased), Ralph E., and Mrs. John Owen, all being residents of Eau Claire. Aloney, Sen., died September 18, 1874, aged fifty-eight years.

David W. Rust was married about 1850 to Elizabeth Hagerman, who died in 1856, leaving three children, George, John J., and a daughter who is now a Mrs. —— Harris of Colorado. In 1861 David married Matilda Luff, of Newport (a sister of his brother's wife), who died soon after their marriage. About 1873 he married another sister, Laura Luff, who died in 1894, leaving one son, David W. of Detroit.

Amasa Rust, Jr., died January 26th, 1893, at the age of 69 years. He was married in 1849 to Marietta Grout of Newport. Their children were Charles A., Ezra G. and Ida G., wife of James G. McPherson, all of whom are residents of Saginaw.

Ezra Rust, fourth son of Amasa, Sen., was born in Vermont in 1832, and removed with his parents to Michigan in 1837. At the age of fourteen years, he began to work in the saw mill of his brothers at Newport, and spent the three seasons of 1846-7-8 in "jacking" logs. In 1849 he left the mill and began a six years' record of steamboat engineering, which terminated in the fall of 1854. In 1855 he returned to Newport and entered into contract with his brothers to run their saw mill by the thousand, at the price of $1.50, and this he continued until the fall of 1858, when they abandoned that field for want of stock. Ezra now went to Cuba, where he was for nine months engineer on a large sugar plantation, and returning, formed a partnership with James Hay, under the name of Rust & Hay, which continued until the death of Mr. Hay, November 25th, 1881. This partnership was for the purchase of lands, logging and manufacturing lumber. Soon after the discovery of salt in the valley, the firm in 1862 erected large salt works at South Saginaw on the Saginaw river, adding the manufacture of salt to that of lumber. In 1865 the firm of Rust, Eaton & Co. was formed which is still in existence, although in process of closing up business. In 1871, with Myron Butman, the firm of Hay, Butman & Co. was formed and operated a mill at Bay City, until the death of Mr. Hay in 1881. Mr. Rust was married November 25, 1856, to Emma B. Mather of St. Clair; they have no children, two daughters having died in infancy.

John F. Rust, youngest son of Amasa Rust, Sen., was born at Wells, Vermont, in 1835. He was married in 1861 to Miss Wealthy Ann Smith of Cleveland, where he now resides. They have five children, Frank P., Gertie (now Mrs. George Chandler), Charlotte, Clara, and John F., all of Cleveland, Ohio. After the death of the two elder brothers, Aloney and David, the business which they had conducted was consolidated with the interests of John F. and Amasa, under the name of Rust Bros. & Co., and placed in charge and management of Charles, son of Amasa. Many combinations of the extensive operations of the Rust brothers have been formed since the building of the mill at Newport in 1846, among which we may name, the firms of Butman & Rust (Amasa Rust and Myron Butman), Burroughs & Rust (George L. Burroughs and Amasa Rust), Hay, Butman & Co., of which Amasa Rust was the company, and Rust, Eaton & Co. Aloney and David Rust were also for a long time associated with James Sanborn of Port Huron, and Newel Avery of Detroit. John F. & Co. located large bodies of land in the Upper Peninsula.

Probably no house or combination of men in the business of the valley or the State, enjoyed a more satisfactory reputation for foresight, energy and fair dealing than is conceded to the Rust Brothers, in their various combinations and extensive operations.

Thomas Merrill.—Few men have occupied a more prominent place in the lumber industry of

Thomas Merrill

the Saginaw valley during the past forty years than has Thomas Merrill, who since 1856 has been a resident of what, until recently, was known as Saginaw City. Mr. Merrill first came to the valley in 1853, but did not take up his permanent residence there until 1856, although operating to a greater or less extent in its timber. He was born in Carmel, Maine, April 13, 1815, and assisted in the work of his father's farm, until at the age of twenty-five years he purchased a farm and combined farming with lumbering in the woods of the Pine Tree State. He in 1849 exchanged his farm for a saw mill on the Penobscot, fifteen miles from Bangor, and began the manufacture of the excellent spruce and hemlock which still abounded on the waters tributary to that stream, and was thus occupied together with other lumbering operations for the next four years. On the 16th of June, 1853, he married Miss Marie Benjamin, of Newport, Maine, and in October of the same year he sold his saw mill and took a trip to Michigan. Returning to Maine in 1855 he essayed to settle down upon a farm, but the enchantment of the Michigan forests of pine had taken a fast hold upon him and proved irresistible, and in 1856 he returned west and in connection with Charles Merrill of Detroit, commenced lumbering on the Pine river of Gratiot county, and worked for and with Charles Merrill for the next four years, when they purchased a tract of pine on the Chippewa river, upon which they operated for the next six years. In 1864 he formed a partnership with Cyrus Woodman of Boston and Henry Corwith, of Chicago, and the firm purchased large tracts of pine on the Tobacco, from the Portage Canal Company, and Mr. Merrill in charge, lumbered not only for the firm, but as well upon lands acquired upon his own individual account. This co-partnership arrangement continued until 1882, with satisfaction and profit to all parties concerned, and in that year all remaining lands of the company, cut or uncut, were disposed of, and the partnership dissolved. During all these years, involving extremely heavy operations, so successful was the management of Mr. Merrill, that his partners did not desire to examine his accounts during the entire period of the partnership and not a dollar was lost in an important project. It is safe to say that in the course of the period named, Mr. Merrill handled fully 400,000,000 feet of logs and lumber, a large proportion of which was cut on the Tittabawasse river and its tributaries, streams which since the incorporation of the Boom Company in 1864, of which he was a prominent stockholder from its organization, have turned out the enormous aggregate of 26,000,000,000 feet of logs for sawing at the mills of the Saginaw river. Mr. Merrill did not confine himself to the manufacture of lumber, but dealt largely in logs, except when prospects dictated the advisability of manufacture. With the decadence of the timber resources of the lower peninsula of Michigan, Mr. Merrill became interested in various enterprises in Wisconsin and the Upper Peninsula, and in 1882, in company with Abel Brockway he purchased large tracts of land in Washington, and in British Columbia, which abound in the gigantic Douglas fir and cedar of the Pacific coast.

Mr. Merrill has enjoyed the reputation from his first arrival in the Saginaw valley, of being a shrewd and careful lumberman, whose word was known to be the synonym of reliability, and whose judgment was recognized as safe in every particular. As a citizen none have enjoyed a higher measure of respect from their neighbors and friends, and none have more richly merited such confidence. His public spirit has been shown in the erection of some of the most substantial business blocks of the valley, the Merrill block being an especially handsome and well arranged office building. For many years a Democrat in his political affiliation, he has of late become a member of the Prohibition party, and would gladly see the curse of the liquor traffic wiped out by legal enactment if possible. He is an elder in the Presbyterian church of Saginaw, and is respected as a man whose success in business is not tainted with the dishonest trickeries to which so many men feel called to resort, in order to gain success. He has carried through vast enterprises, in such manner as to win and hold the confidence and esteem of all who have had dealings with him, and the immensity of the operations which are to be described by hundreds of millions of feet, are but one indication of the vastness of the lumber business of the valley, and of the operations of a single individual, in whom are combined energy, enterprise and integrity.

John S. Estabrook.—Few men are now living who have had longer intimate connection with the lumber trade of the northwest than John S. Estabrook of Saginaw.

Mr. Estabrook was born at Alden, Erie county, New York, in 1826, and received his education in the common schools of that village, supplemented in his fifteenth year by one winter's course in a select school. His father was Seth Estabrook, a farmer, merchant, and lumberman, and a man prominently connected with many important enterprises in his day, whose wife, Hannah Alden (Hebard), the mother of John S., was a lineal descendant of John Alden and Priscilla Mullen, whose romantic history and courtship is a part of the history of colonial days. Mr. Estabrook's paternal grandfather was the Rev. Experience Estabrook, an early graduate of Dartmouth college, and a famous clergyman of his day. The same year in which John S. was born, his father built a saw mill upon Buffalo creek, on the Indian reservation near what is now Elba village, having obtained a contract with the Indians for cutting pine and other timber for a period of years, at the expiration of which the mill was to revert to the Indians. The mill was of the primitive type common to the day, a two sash mill run by a flutter wheel; it ran in the manufacture of lumber for ten or twelve years, enabling Mr. Estabrook to accumulate what in those days was considered quite a fortune, which through the rascality of a man in Buffalo with whom he had dealings, was swept away, and in 1840 he died without having been able to recoup his fortunes. His son John S. remained upon the homestead until 1844, when he took a situation in a grocery store at Buffalo. In June 1845 he boarded the schooner Cambria of which his brother, Moses Hebard Estabrook, was the captain, bound for St. Clair, Michigan, then with

Port Huron sharing the honor of being the leading lumber manufacturing point west of Buffalo (see general history). He did not expect to remain at St. Clair, but becoming enamored with the music of the saw mill, he decided to remain and entered the employ of Wesley Truesdell whose mill contained three mulay saws, and a siding machine, taking the position of tail sawyer at wages of twelve dollars per month, and continued until the end of the season. The methods of manufacture in those days present a striking contrast to the more modern methods with which the present generation is familiar. The upright saw, whether sash or mulay, was thought to be doing good business if it cut five to seven thousand feet per day, and the siding cuts were edged upon the face of the log after it was turned down. It is indeed a small mill in these days whose daily product does not equal very nearly, if not quite, the monthly product of the mills of yore. The timber was as a rule of the finest which could be selected from the forest, no defective or coarse timber being considered worth the cutting, and as a result the sawed product ran high into the better grades. The siding machine was calculated for taking cants of six to twelve inches in thickness and sawing them by automatic set works into siding, often called "clapboards," or into one inch boards, flooring, etc. Mr. Estabrook spent the winter of 1845-6 in attending school, wisely determining that he should neglect no opportunity for the improvement of his mind, and the following spring resumed his employment in the mill, now, however, as the head sawyer, under Doctor Justin Rice, who now had charge of the business, and who took particular pains to assist the young man in his efforts toward advancement and progress in life. The second winter was spent in a logging camp, with a result not uncommon in those days, of being cheated out of his winter's wages. In the spring of 1847 the Truesdell mill was operated under contract by a man named Pierce, for whom Mr. Estabrook worked for a couple of months, and quitting, went to Algonac, where he entered the employ of Brooks & Sinclair, in the capacity of sawyer, remaining until in the fall of that year, when he worked in a mill on the Black river for D. B. Harrington until the close of the sawing season. The winter of that year he spent at his old home in New York State, returning in the spring of 1848 to take a position in the mill of Cummings Sanborn at Port Huron, operated by Isaac Halsted, but being soon after stricken with a severe illness, upon his partial recovery, joined a surveying party under Engineer Guy Carleton, whose contract with the government called for the survey of a portion of the public domain in the upper peninsula of Michigan, which was reached by steamer to Mackinaw, and thence by a small schooner to Point Patterson, on Lake Michigan. He remained with this party long enough to complete the survey of eight townships in and about the Manastique lakes, and his health being fully established, he in October returned to St. Clair. In 1849 he entered the employ of Willard Parker, who soon made him foreman of his business. In June 1852 he was sent to Sand Beach and the Huron shore to ship a lot of lumber for his employer; the weather proving too rough to permit the steamer to make her landing, he was carried to the Saginaw river, and the boat making a landing at Carrollton, the young man saw a very fine lot of lumber in pile, of which he assumed the responsibility to purchase one million feet of Cass river lumber, all of the highest grade of "uppers," paying eight dollars for "fourths" and fifteen dollars for uppers, which included the three sub-divisions of "clear" as known in Albany inspection, which was the ruling guide in the purchase and sale of lumber. Proceeding on to East Saginaw he met John Gallagher, for many years a prominent manufacturer, and from him purchased two hundred thousand feet of equally high grade, and at the same prices, the trade being conditioned upon Mr. Parker's approval, and being finally consummated, yielded a profit of $10,000 as the result of his enforced trip to a but little known section, but one which was destined from this time to become the scene of his life's labors. So well pleased was his employer that he gave the young man all the profit in excess of $9,000 and adding a like amount instructed the young man to return to the valley and find some more bargains on joint account. Following these instructions Mr. Estabrook succeeded in purchasing large amounts of high grade lumber for which he paid the same prices as in his previous purchases ($[illegible], $8 and $15), realizing an advance in value before the opening of navigation in the following spring, so as readily to command $8, $15, and $22 for the respective qualities. The output of the mills of the Saginaw valley at this time was about 25,000,000 feet per season, as reported in the Detroit papers of that period. Mr. Estabrook's purchases were largely from mills located in the surrounding country, those located upon the Cass, Flint and Shiawasse rivers being supplied from forests in which the white pine was of the finest quality which the world ever saw. About this time Mr. Estabrook began an investment of his own means in timber lands, and in the winter of 1853-4 he lumbered a tract on the Cass river to the extent of about 3,000,000 feet, and in the winter of 1855 he put in several million feet on the Shiawasse, which by reason of a bad stream did not come down until the summer of 1858, at which time values had so fallen that the venture proved extremely disastrous, resulting in heavy financial loss. During 1854-5 Mr. Estabrook was associated with Samuel W. Yawkey & Co. and also with Clark and Grammis Moltroup of Bay City, in the commission and inspection business, connections which were terminated in 1857.

In the spring of 1858, he was given charge by the Lee Bank of Massachusetts of a mill property owned by the bank at St. Charles, in the southern portion of Saginaw county, and in the fall of that year entered upon a general commission and inspection business, in which he established a reputation for fair dealing, combined with a consummate skill in the judgment of quality and value of each grade of lumber which gave him a reputation as an inspector, second to no other man in the trade.

In 1862 Mr. Estabrook associated with himself in the lumber commission and inspection business, Mr. L. P. Mason, and the firm of Estabrook & Mason was for many years prominent in the Saginaw valley with a clientage extending to all portions of the country among the buyers of lumber.

In 1871 Mr. Estabrook in company with Alexander Gebhart purchased the saw mill at South Saginaw known as the Curtis & King mill, which they rebuilt and modernized in 1872 and have continued to operate to the present time, and since that date the firm of Gebhardt & Estabrook has ranked among the most reliable business houses of the Saginaw valley. In 1876 the firm began the cultivation of a trade requiring shipment by rail, the preparation of which demanded extensive planing mill facilities, with which they are excellently provided, and since that period their extensive trade has found shipment almost exclusively direct to the retail dealers of all portions of the land. Up to the date mentioned, the trade of the valley had been mostly confined to shipments by vessel to distributing points on the chain of lakes, and Gebhardt & Estabrook were among the first to realize the advantages of a trade direct to the yards of the retailer.

Mr. Estabrook was married in 1854 to Miss Ellen R. Burt of Ypsilanti, who died in January 1863, leaving one child, a daughter, Winnifred. In 1865 he was married to Miss Helen C. Morris of Ypsilanti, who died April 17th, 1867, leaving two children, Justus Norris, and Mary Elizabeth. On the third of September, 1889, he was married to Miss Harriet Sharp of Jackson, Mich. In the social world Mr. Estabrook has been held in as high esteem as in the business walks of life. Eminent in Masonic circles, an active member of lodge, chapter and commandery, he has in each and every station been found true and trustworthy, and fully worthy of the confidence of his fraters. Previous to the war, a Democrat, he has since the formation of the Republican party been a consistent adherent to its principles. Never a seeker after office, many important trusts have been thrust upon him and he has been called to the various offices of Mayor, Alderman, School Inspector, Water Commissioner, Police Commissioner and Member of the Board of Public Works. He was twice elected to represent his district in the State legislature, an office which he filled with marked distinction, and the hearty approval of his constituents, as was preeminently the case with the other offices enumerated. He has always been an active member of the Saginaw Board of Trade, and was for five years its president, and is a recognized authority upon all matters connected with the business interests of the Saginaw valley. Commencing life under adverse circumstances demanding the highest degree of self-reliance, patience and perseverance, Mr. Estabrook has conquered the obstacles which lay in his path, and in the ripeness of his days not only enjoys the financial success of his diligence, but the love and respect of all classes of the community which he has done so much to mold, and which in no small degree exhibits in its growth and prosperity the effects of the influence of a man of brains coupled with integrity.

Ammi Willard Wright.—While perhaps it might not be appropriate to speak of Ammi W. Wright as one of "the fathers" of the lumber trade of the Saginaw valley, in view of the fact that his advent was preceded by that of the Williams, Miller, Grant, Estabrook, and a host of others who have figured prominently in the development of its vast lumber industry, it is indisputable that the name of Mr. Wright should occupy a very prominent place in a history of the development of the mighty industry which has made the valley so noted as a chief point of lumber manufacture and development.

Mr. Wright was born at Grafton, Windham county, Vermont, July 5, 1822, of which State Mr. Wright's parents were natives, as were their progenitors, who took an active part in securing the liberties of the country and inculcated upon their children that love for our free institutions which is a noted characteristic of the sons of the Green Mountain State. His father's family in the early days of this century removed to Rockingham, Vermont, where, with his six brothers and three sisters Ammi received such education as was afforded by the district school. From seventeen to twenty years of age, the young man spent in farming in his native State where the rigors of climate and roughness of soil made rigid economy and thoroughness of application essential to that measure of success for which he sought, and here he acquired a real love for agriculture, and a manly admiration for fine horses and stock, which has been one of his life long characteristics. Exchanging the country for the city Mr. Wright spent one year in Boston, where he took primary lessons in the school of experience under the tutelage of his own native talent, and made the world's acquaintance amid scenes of excitement and activities calculated to start his mind in new channels of thought and methods of action. Returning to Vermont in 1844, before the era of railroad enterprise, and the days of rapid transit had changed the old ways of doing business, he engaged in the carrying trade between Rutland and Boston, taking produce from the country to the great city, and bringing manufactured goods back to the country merchant. Following this occupation for two years with financial success, he undertook the management of a hotel for Jeremiah Barton of Bartonsville and in 1848 married the daughter of his employer and took a lease of the hotel. A year later he removed to Boston and took a lease of the Central hotel on Brattle Square, but a few months later concluded to seek a home in what was at that time the far distant west. The summer of 1850 found Mr. Wright and his family in Detroit, then but a small and undeveloped city, whose resources as the center of a great and rapidly developing country, were but dimly realized, and the wonderful resources of which country in lumber, salt, copper, iron and other commercial factors were almost wholly unknown. Mr. Wright, however, was far seeing enough to comprehend that the lumber business was inevitably destined to play no small part in the development of the State and Nation, and in 1851 he settled in the Saginaw valley. Saginaw county at that time comprised the entire territory north to the straits of Mackinaw and the population of this entire territory was about two thousand souls. The embryo cities of the valley were connected by a rope ferry. The first year of Mr. Wright's residence in the valley he devoted to prospecting lands contiguous to the Cass, Flint and Tittabawasse rivers, personally inspecting large tracts of pine lands, bravely enduring the hardships of pioneer life, and meeting with remarkable success in locating some of the finest lands in the State. He commenced his operations on the Cass, where his first venture was in putting into that stream about two million feet of logs, which he rafted down the river and disposed of to the mills at Saginaw, which were then thirteen in number. From 1859 to 1865 he carried on extensive operations in this line, and in the interval, formed a connection with Harry Miller and Valorous A. Payne, and the firm of Miller, Payne & Wright purchased what was known as the "big mill" erected some years before by Rolfeson, Hatch & Co., and which had passed into the hands of the Farmers & Mechanics' Bank of Burlington, Vermont, from whom the new firm made the purchase, refitting it with the best machinery which was at that time in vogue for the manufacture of lumber, and prosecuting one of the most extensive operations then known in the valley. This mill was then, as it has since remained, located near the foot of Throop street in what was for many years known as Saginaw City, now the Eleventh ward of the consolidated city of Saginaw. The business was prosecuted with the energy for which the members of the firm have always been noted, notwithstanding that prices would in later years have been esteemed extremely ridiculous, lumber by the cargo selling in 1859 at $3.50 for shipping culls, (the grade of which was at that time equal to a present grade of common) $7.00 for common, $12.00 for second clear, and $16.00 for first clear (the price of the latter grade has for the past twenty-five years ranged from $30 to $40). In 1865 the firm of Miller, Payne & Wright was succeeded by that of A. W. Wright & Co., J. H. Pearson of Chicago purchasing a part of the interests of Messrs. Miller and Payne, and Mr. Wright the remainder. Mr. Pearson was at this time a large dealer in Chicago. In 1871 Mr. Pearson retired and Mr. Wright extended his operations by establishing the house of Wright, Wells & Co., in connection with Charles W. Wells, Charles H. Davis and Reuben Kimball, with operations at Wright's Lake, in Otsego county, which continued until 1881 when Messrs. Wells and Kimball retired from the firm, Messrs. Wright and Davis continuing the business. These gentlemen afterwards transferred their operations to Minnesota and with others under the firm name of Wright, Davis & Co., acquired some seventy thousand acres of pine land in St. Louis and Itasca counties, which they sold in 1892 to Frederick Weyerhaeuser and his associates, reserving the fee to about twenty thousand acres of mineral land lying along the now celebrated Mesaba Iron Range, upon some of which valuable iron mines have since been opened and are now being operated by lessees. The Swan River Logging Company, which was formed by Mr. Wright and his associates, took from the purchasers, Weyerhaeuser and others a contract for lumbering the timber sold them from these lands, and for this purpose in aid of such lumbering operations, they built the Duluth, Mississippi River & Northern railroad from the banks of the Mississippi river at the mouth of Swan river northerly a distance of thirty-five miles, to Hibbing, with about thirty miles of logging branches, over which road there is now annually hauled for different parties about 100,000,000 feet of logs, beside great quantities of iron ore from the lands of Wright, Davis & Co.

During the partnership of Wright & Pearson in 1867 the firm established a wholesale lumberman's supply store at Saginaw, associating with them Charles W. Wells and Henry J. Northup. This business was continued until in 1868 when Mr. F. C. Stone took Mr. Northup's place and from that time the business has been carried on under the firm name of Wells, Stone & Co., which firm purchased a tract of 30,000 acres of pine lands in Roscommon, Gladwin and Clare counties, establishing a large lumbering plant, including a well equipped railroad of thirty two miles in length, with three locomotives and the necessary rolling stock, and in connection with this operation cleared and cultivated a farm of 1,000 acres in Gladwin county.

In 1882 the A. W. Wright Lumber Co. was established and incorporated with a capital of $1,500,000. A. W. Wright, president; Charles W. Wells, vice-president; F. C. Stone, treasurer; W. T. Knowlton, secretary and W. H. Wright mill superintendent. The firm of Wells, Stone & Co., with all their lands, railroad and lumber interests, and also the firm of A. W. Wright & Co., and that of Wright & Knowlton of Saginaw, comprising saw mill, salt block and lumberyards, were all merged in the incorporated company, whose operations in the counties mentioned embrace the cutting of an average of thirty millions of feet of logs per year rafted to their own mills. In addition to the business of the incorporate company, Mr. Wright's genius for organization and capacity for work are seen in the operations of the firm of Wright & Ketcham, whose lumbering in the counties of Gladwin and Midland comprised no less a volume than 40,000,000 feet of logs annually, involving about thirty miles of railroad, and the employment of no less than four hundred men. Mr. Wright's agricultural tastes formed in his early days, have in his riper years, formed an agreeable element in his character, and have found practical expression in his love for improvements, and appreciation for fine farms with beautiful landscapes of meadow, grains, fruits and miniature forests. Early in his Michigan experience, he cultivated a large farm in Gratiot county where his family have since enjoyed the advantages of home life amid rural scenes and industries congenial to virtue and domestic felicity. He has also extensive tracts of grazing lands in Texas, Dakota and Montana, which are devoted to the industries of cattle raising, sheep and horses, for the improvement of the breeds of which he has taken a deep interest. The beautiful village of Alma in Gratiot county is a monument to Mr. Wright's spirit of improvement, and the wisdom of his views, in the upbuilding of a model village. He built the Wright house, a three-story solid brick building, strictly first class in every particular, lighted by electricity and heated by steam; the Alma Flouring mill, the Alma creamery with a daily capacity of 1,800 pounds of butter, a large brick block of stores and an opera house. He erected and gave to Alma college its first buildings and has always contributed largely to this institution of learning, which is doing a good and great work and is making itself felt in Michigan and elsewhere. Alma's fame as a health resort has extended even to the most distant States on account of its mineral waters and ideal sanitarium and this is another of Mr. Wright's enterprises and represents an investment of about $300,000. Everything in and about the institution is strictly up-to-date, and the comfort and welfare of its guests are considered in every detail.

Mention should not be forgotten of the general business interests in which Mr. Wright is more or less actively connected, showing as they do, his extraordinary breadth of vision, and business capacity. While his fortunes had their rise in the lumber business his comprehensive vision has led to participation in many other useful adjuncts to his own business, or such as gave promise of advantage to himself or the community. He was one of the incorporators of the Tittabawasse Boom Company, organized in 1864 for the more economical handling of the vast amount of logs which it had by that time become apparent would be floated upon that stream, and which has at times been called upon to handle as high as 600,000,000 feet in a year, and which finished its operations in 1895, having since the beginning of its operations handled no less a quantity than the enormous aggregate of 11,848,549,293 feet, owing no little amount of its success to the careful management of Mr. Wright, for many years one of its directors and for several terms its president. In 1865 the Saginaw and St. Louis Plank road was constructed largely through the efforts and means of Mr. Wright. This road was thirty-five miles in length, connecting Gratiot county with Saginaw, and opening up a large farming country of great value to that section of the State. In 1872 the building of the Saginaw Valley & St. Louis railroad was esteemed a necessity to the development of a large section of rich timber and farming lands, and with Mr. Wright as its treasurer and main spring, the enterprise was carried to a successful completion, through many difficulties which were overcome through the indomitable energy and public spirit of Mr. Wright. The First National bank of Saginaw, with a capital of $200,000 was organized in 1871, and its uniformly successful career, was in no small degree due to the almost continuous presidency of Mr. Wright. He was president of the Merchants' National Bank of Duluth, Minnesota, and a stockholder of the First National Bank of Saratoga, New York, and of the National Bank of Commerce of Minneapolis, Minnesota, and has banking interests at the town of Alma where he resides. His commercial interests are largely centered in Detroit Michigan; Duluth and Minneapolis, Minnesota; Louisville, Kentucky, and at Saginaw. He is interested in one of the largest sash and door factories in the State of New York, located at Oswego, and largely interested in and president of the Advance Thresher Co., of Battle Creek, Michigan, and in the Saginaw Manufacturing Company at Saginaw. Mr. Wright's interest in the welfare of his employes and his natural qualities of a sympathetic nature have found fitting place as a prominent factor in his business success. Fairly understanding men, he was not afraid to trust them, and the confidence he so generously reposed in them inspired them with a strong attachment to his person and his fortunes; their devotion to his interests always met with merited recognition and reward. He has ever been the friend of all material improvements and all civil, social and religious progress. He has done much for all business interests of the sections wherein lay the scenes of his activities, and has made generous response to all objects of a benevolent and philanthropic character, which made suitable appeal to his intelligence and judgment and this, without ostentation, or for the commendation of his fellows; plain in his tastes, accessible to the humblest who sought his advice or assistance, thorough and substantial in all that he undertakes, his aid is never sought in vain for the support of all worthy objects and institutions, much less from impulse and sensibility, than from the exercise of an intelligent judgment with reference to practical results. Our recital by no means exhausts the sum total of the many business enterprises with which the busy life of Mr. Wright has been occupied. Pages might be written and still but scant justice be done to one of the most enterprising of Michigan's many enterprising, far-seeing and useful lumbermen.

In this connection it may not be inappropriate to quote from some remarks made by Mr. J. H. Pearson at a gathering of a number of business associates of Mr. Wright July 5, 1892, to celebrate the seventieth birthday of that gentleman.

> "I would not do justice to this occasion if I did not briefly mention a few of the peculiar and strongly marked characteristics of our host. His motto was 'Early to bed, and early to rise.' He was a sound sleeper whether it be on the floor of a lumber camp, with his coat for a pillow, and a buffalo robe or blanket to cover him, with the temperature 20 degrees below zero; it was all the same to him. In one minute after his head was on the pillow he was sound asleep. He was the first man to arise and take a general survey of all the horses, oxen, bob-sleds, logs and camp equipments; find out how much pork, beef, flour, etc., there was on hand; how many logs were banked, and how many skidded, and he would have the foreman of each department render an account before breakfast of everything that was going on in and about the lumber camp. One little incident: I came over from Chicago some twenty-five years ago to spend a week with Mr. Wright in visiting the fifteen or twenty camps in which we were interested, thereby making a circuit of two or three hundred miles with a pair of horses and a tote sleigh. We started on Monday morning and we rounded up on Saturday night at what they called old Uncle Daddy Wright's place, some ten or twelve miles above St. Louis. The snow was two feet deep or more, and the night we stayed there the thermometer was between 20 and 30 degrees below zero. He got up in the morning, put on his pants and a woolen shirt, and pulling up his

pants as a boy would who was going to wade in the water in the summer time, went out barefooted into the snow two feet deep, to the barn to feed his horses. I think it must have been 30 degrees below zero; the snow creaked, and I thought it a most insane thing to do. When he came back into the house he went to his cold room and with a dry towel wiped his feet perfectly dry for more than ten minutes, then he put on a pair of good, dry woolen socks, his boots, no overshoes for him; simply a pair of thick boots. 'Never go near the fire in cold weather,' he said, 'if you want to keep warm.' We drove fifty miles that day and I though I should freeze, yet he said he was not cold at all. I was never so glad in my life to get back to a warm house in Saginaw.

"If our friend was to follow the example of many of our leading men of the day, and erect his own stone monument in his life time, I would recommend that it be hewn from the granite of his native state, Vermont, and above his name and date of birth, there should be cut deep and large the word **INTEGRITY**, for that is the word which tells the story of the life of the man whose seventieth birthday we are to celebrate.

"I mention some of these things that you may know, as I do, of his wonderful power and business capacity, his ability to endure hardships and to overcome all difficulties. He had wonderful tact in dealing with all classes of men, and knew what to say and what not to say on all occasions; he was a good judge of human nature. I know of no man his equal to conduct a large business and to comprehend the entire situation and to make a success of whatever he might undertake to do."

Charles W. Grant.—From the earliest history of the lumber business of the Saginaw valley the name of Charles W. Grant has been most familiar.

Mr. Grant was born in Chenango county, New York, in 1817. His father was a carpenter and joiner, combined with the occupation of a farmer. At the age of eighteen years young Grant went to Gaines in Orleans county, where he found employ in a water power saw mill, and in the whitewood and hemlock forest which supplied its log stock, hauling logs to the mill and for a considerable portion of his time taking the place of the night sawyer, in getting out timber and lumber for the construction of the Erie canal. In 1838 he removed west, settling at Portland at the mouth of Looking Glass river, Ionia county, Michigan, where he found work in a saw mill, removing a year later to Flushing, in Genesee county, where he operated a shingle mill owned by Charles Seymour. In 1841 he found employ in the water power sash saw mill of Stephens, Pierson & Co. at Flint, retaining the position of head sawyer for the next seven or eight years, being accounted an expert in that line. The season of 1849 was spent at Grand Haven in the capacity of sawyer in the mill of Douglas & Hopkins.

In 1849 his rovings ceased and he accompanied the eccentric Curtis Emerson to Saginaw and upon the completion of the mulay mill with a siding machine, of Emerson & Eldridge, entered into contract with them to operate their lath machines, and was thus engaged when in 1850, in company with Alfred M. Hoyt, he built what was for many years known as the "Blue Mill," in which was a mulay saw, a side table edger and a cut off saw, the mill being erected for the primary purpose of cutting plank for the construction of a plank road over a portion of the country connecting the village of Flint with the rising settlement on the Saginaw river. In 1855-6 he purchased the "Ryerson" mill at Lower Saginaw (Bay City), and formed, in connection with the late W. L. Fay, the firm of Grant & Fay; this mill was burned in 1863, and was in the following year rebuilt by Gates (S. G. M.) & Fay, the old firm dissolving. In 1866 Mr. Grant purchased the saw mill opposite East Saginaw owned by Babcock & Bliss, which he operated until 1875; having meantime, in 1870, in connection with J. F. Brown and Thomas Saylor purchased the Webster mill at Zilwaukie, which the firm operated for several years and until its destruction by fire. In 1878 C. L. Grant & Co. purchased the mill of William McCallum at Lower Carrollton on the Saginaw river, which is still in operation.

Mr. Grant was essentially a man of affairs, and one who exercised a by no means inconsiderable influence over the destinies of East Saginaw, and in fact of the valley generally. He erected the first dwelling in the young village of East Saginaw, which as a rival of the older village of Saginaw City, was located on the east bank of the Saginaw river, upon a plat of eighty acres purchased in 1850 by Norman Little for J. M. Hoyt (who was really the father of the now thriving city, although his son Jesse Hoyt is popularly supposed to be entitled to that distinction). Mr. Hoyt had obtained a charter for the plank road previously mentioned, which while intended to forward the interests and growth of Saginaw City, was warmly opposed by the citizens of that place through fear that Mr. Hoyt would acquire an undue and preponderating influence over its destinies, and Mr. Hoyt encountering equal obstacles in the way of diverting the line of his road to Lower Saginaw, determined to start a new town on the east bank of the river, undeterred by the, at that time, forbidding and somewhat swampy character of the land, and securing the aid of Mr. Grant, erected the "Blue Mill" for cutting the necessary planking for his road, he laid out the village of East Saginaw and offered his lots for sale at $50 each for a fifty foot lot, with a credit of three years in which to complete the payment. This, briefly, was the origin of what has since become the third city in size in the State of Michigan, through annexation with its former rival and a consolidation of their municipal interests.

About 1867 a lumberman's Board of Trade was established, with its headquarters at East Saginaw, of which Mr. Grant was elected secretary, an office which he continued to hold until 1891, when advancing age demanded a reduction of his cares. From 1856 to 1860 Mr. Grant held the office of sheriff of the county, which then included the entire region to the north to the Straits of Mackinaw, out of which territory several counties have since been formed. He was one of the five original organizers of the township of Buena Vista in 1851, and held all the

A N Knight

offices of the new township, including those of town clerk, commissioner of highways, justice of the peace, and school inspector, there being more responsible offices to be filled than there were capable men to fill them, and Mr. Grant being recognized as possessing abundant qualifications for a judicious moulding of all the interests of the young township. How wisely he fulfilled their expectations, its subsequent thriving conditions abundantly testify. During the administration of President Buchanan Mr. Grant held the position of Deputy United States Marshall, under Col. Rice and John S. Baggs.

The history of Charles W. Grant is that of the lumber development of Michigan. He was one of the fathers (if that term may be employed) of the thriving city which owes to him no small measure of its prosperity, from his erection of its first dwelling, until its attainment of a population of not far from 40,000 souls previous to its consolidation with Saginaw City. He built the first mill within its original borders, and from its production of the limited quantity of lumber for the building of a plank road, has seen and been connected with mills, multiplied in number and to a production of more than one billion feet of lumber in a single year, and to a decadence of the business through the exhaustion of the forests to a point of practical extinction, after the mills of the valley had contributed no less than thirty billion feet of lumber to the grand total of Michigan's lumber production.

What a wonderful history is thus presented in the life of one useful citizen who, crowned with the respect and honor of his fellow citizens, but awaits the summons which shall crown his career of usefulness with the plaudit of "well done," as he is ushered into a city where is found perennial youth.

Charles L. Grant.—A nephew of C. W. Grant, and for the past twenty years connected in business with him, is the son of Capt. Elihu Grant, a West Point graduate of the class with General Ulysses S. Grant, to whom he was distantly related, and with whom from the "rooming together," to the day of his death a warm friendship existed. Charles was born at Dartmouth, Mass., in 1848, attending the common schools of that place until sixteen years of age, when after a commercial course, he obtained a clerkship in the office of the "Methodist," at New York, and after a few months was made bill clerk of the Methodist Book Concern, holding that position for nearly five years. In 1869 he went to Saginaw in the employ of his uncle Charles W. Grant, remaining until the financial revulsion of 1876, when he went to Stevensville, Bradford county, Pennsylvania, where he erected a saw mill for his brother, and ran it for a few months. In October of that year he returned to Saginaw, and in company with his uncle formed the firm of C. L. Grant & Co., purchasing the McCallam mill at Carrollton, and erecting salt works in connection with it. The mill has a capacity for the manufacture of 50,000 feet of lumber and 10,000 pieces of lath daily together with staves and heading for salt barrels, and is still in operation, under the management of Mr. Grant.

Wellington R. Burt of Saginaw was born in New York State in 1831. His early days were spent upon a farm until at the age of 22 years he was seized with a spirit of adventure, and the ensuing three years were spent in the placer mines of Australia, and in travel in South America. Returning to the States, Mr. Burt for a time took the management of a store and hotel in Clinton county, Michigan, and in 1857 visiting the Saginaw Valley, found employ in a lumber camp on Pine river (Tittabawasse) at $13 per month, this being the initial camp above Indian Town, cutting his first logs of the fine timber for which in succeeding years Pine river became famous. Although average wages were but $11 per month, and the quality of the timber vied with that of the famous Cass river, his employers failed before settling with their men, and Mr. Burt's wages for five months were never paid. In the following winter Mr. Burt began jobbing and located a camp on Pine river. In 1860 he married, took up a permanent residence in the valley with which he has since been so closely identified, and now began purchasing small tracts of timber land and logging upon his own account. His first winter's operations included about 3,000,000 feet, a portion of which he sold in the log at $4.12½ per thousand feet, under a guarantee that they would average 40 per cent uppers when sawed, manufacturing the balance principally in three inch deal, the net average of the venture proving the logs to run 50 per cent uppers, his reserved portion selling at $11 per thousand feet for the lumber. In 1862 he purchased the "Hill" mill at Carrollton which he operated for one year and then sold to Hollister & Gilbert, who had come from Rochester, N. Y. In 1864 Mr. Burt built a mill at a point on the Saginaw river between Zilwaukie and Portsmouth, giving the name of Milbourne to the locality. This mill contained one circular, one mulay and two gangs, and was accounted the largest mill upon the river at the time, and with an average cut of 20,000,000 feet of lumber and 20,000,000 shingles, ran until 1876, when it was destroyed by fire.

Mr. Burt soon after purchased the extensive property of the New York Lumber and Salt Company, located a little north of Zilwaukie, which he remodeled at a cost of $100,000. During this time Mitchel & Rowland of Cincinnati were associated with him under the firm name of W. R. Burt & Co. In 1880 the property was sold to Mitchel & McClure, and Mr. Burt became associated with Charles Lewis of Bay City, purchasing a half interest in the mill of Moultroup & Lewis at Bangor, (Mr. Moultroup retiring from a business which had been for many years conducted by Clark and Grannis Moultroup, becoming Moultroup & Lewis after the death of Grannis Moultroup).

In 1880 Mr. Burt established a wholesale and retail lumber yard with a large planing mill at Buffalo, N. Y., which he operated until 1887. From that time to about 1890 Mr. Burt bought logs and had them manufactured, at the same time being directly interested in connection with the Burt & Brabb Lumber Co. at Ford, Kentucky, in the manufacture of poplar lumber, and with this enterprise is still connected.

He was one of the organizers of the Home National Bank of Saginaw in 1882 and held the office of president until the winding up of its business in 1895. He is now a director in several banks, and other industrial enterprises.

About 1888 in connection with A. W. Wright, William McClure and Wells & Stone, Mr. Burt obtained a charter and proceeded to build ninety miles of railroad known as the Chicago, Mackinaw & Saginaw railroad, from Durand, in Shiawasse county, to the Bay shore near Bay city, which is now in active operation, draining a rich agricultural section.

Mr. Burt has been for many years actively interested in the politics of the State, being the Democratic nominee for Governor in 1888, and a member of the State Senate in 1892. In 1893 he was appointed receiver of the Toledo, Ann Arbor & Northern Michigan railroad, and upon its reorganization in 1896, was elected to the presidency of that company, a position which he still holds.

In connection with his milling operations Mr. Burt was extensively engaged in the manufacture of salt and was an active participant in the organization of the Michigan Salt Association, the presidency of which was held by him for about fourteen years.

He was also one of the charter members of the Tittabawasse Boom Company, and a director of the company until 1892. With Mr. Charles Whittier, he is the last survivor of the original company.

Few men have been equally prominent in moulding the prosperity of the Saginaw valley, and none have been or are held in higher respect, as an enterprising merchant, and useful citizen, whose counsels are held in highest honor.

Hon. Ralph A. Loveland.—Among the present prominent lumbermen of the Saginaw valley, whose connection with the trade dates back to a period of nearly or quite fifty years, and who may be characterized as a pioneer in the vast industry which in its yearly value to the nation is conservatively estimated at no less a volume than one billion dollars, mention must not be omitted of one who has been for many years recognized not only as an enterprising lumberman, but whose abilities have also won for him political and social honors of which any man may well be proud, and which illustrates the fact so often asserted, that the lumber business has in the main been carried on by men of rare intelligence and good citizenship. Ralph A. Loveland of the Saginaw Lumber & Salt Co., was born at Westport, New York, January 17, 1819, the son of Erastus and Lucy (Bradley) Loveland, the former a native of New York, the latter of Vermont. His father was a prominent owner and operator of shipping upon Lake Champlain and the Hudson river and the son was in his earlier business years, associated with this industry, devoting his summers to boating, and his winters to the cultivation of his mind at Essex academy. The acquaintance with the subject of transportation at this time acquired, exercised a potent influence over the entire future life of Mr. Loveland, his contact with business men and business methods being in itself a broadening and practical influence of great educational benefit. In 1845 he consolidated the interests which he had personally acquired, with those of the Northern Transportation Co., and was for several years connected with that company. In 1857 he formed a partnership with D. L. White and S. W. Barnard and entered upon the transaction of a lumber business at Albany, under the firm name of White, Loveland & Co., and the firm became the consignee of the Gilmans of Ottawa and Quebec, then ranking as the largest operators in lumber on the continent. This business proved eminently successful and was continued until 1863, when with impaired health Mr. Loveland disposed of his interests in the firm and removed to Janesville, Wisconsin, where he at once became prominent as a citizen, and during his several years residence there, was elected to the mayoralty, together with other important offices. While still in Albany Mr. Loveland had visited the western country, and had become imbued with a liking for sheep raising, and wool growing, and upon removing to Janesville he adopted this as his business, and travelling through southern Michigan, he picked up four thousand sheep which he successfully drove to Iowa, in which State he had found the most favorable field for his enterprise, in which he met with a success which in one year out-ranked all similar enterprises in the State, owning, indeed, more sheep than any other man east of the Mississippi river. Having recovered his health Mr. Loveland in 1869, in company with D. L. White, S. W. Barnard, A. S. Page and Anson G. P. Dodge of New York, established a lumber yard at Chicago, locating in the Twenty-second street district, under the firm name of R. A. Loveland & Co., the business proving so successful as to warrant the establishment of branch yards at Division street on the North Side, and also upon the North Branch. Their supplies were mainly purchased upon the cargo market, which was already a prominent feature of the Chicago trade, while the firm monopolized the receipt of the limited quantity of Canadian lumber which found market at Chicago. Closing out this business in 1876, Mr. Loveland purchased a small mill with a tract of timber in Montcalm county, Michigan, upon the exhaustion of which, he purchased lands upon the Au Gres river in Iosco county, which were estimated to cut 150,000,000 feet of sawing timber, which was cut and rafted to his mill on the Saginaw rivre, near the city of East Saginaw. The cutting of this tract was not completed until 1893, since which time the mill has been supplied by rafting from Canada, the present company having purchased three townships of pine lands in the Georgian Bay district. The Saginaw Lumber & Salt Company was incorporated in 1881 with a capital of $100,000, and now has a surplus of over $300,000, beside having declared a large cash dividend. For many years and until his death, Mr. James Maclaren was president, but in 1893 Mr. Loveland was elected to that position, Otis Sheppard vice-president, R. H. Roys secretary and D. L. White, Jr., treasurer. The average cut of the saw mill is about 25,000,000 feet per year, but this does not measure the operations of the company which employs the cutting of from ten to twenty million feet yearly at other mills on the Saginaw river. The mill of the company is located at Crow Island, four miles north from Saginaw and in connection with it the company operates a farm of 1,200 acres, a large proportion of which has been rescued from the extensive marshes which originally surrounded the mill property. The salt block connected with the mill has a yearly capacity for the production of 50,000 barrels of salt, in the manufacture of which, the mill refuse, formerly a source of expense in its removal and disposition, is made to play a by no means unimportant part, in adding to the profits of the business, providing as it does the requisite fuel salt manufacture. In addition to the extensive business of the Lumber & Salt Company in Canada, and the logging camps which are requisite for supplying the mill, Mr. Loveland and his sons Daniel K. and Ralph, together with his son-in-law R. H. Roys are interested in a large tract of pine land in the Parry Sound district of the Dominion, where they are extensively engaged in getting out "board timber" for the Quebec market, under the designation of Loveland, Roys & White. The business of the Saginaw Lumber & Salt Co. was until quite recently, conducted wholly through vessel shipments, but the later years have demanded a closer manipulation of the product at the point of manufacture and shipment by rail direct to the yard of the consumer, a condition which the company has not been slow in appreciating and adopting.

Mr. Loveland was married March 25th, 1840, to Miss Harriet M. Kent, daughter of Daniel M. and Mehitable Goodrich Kent of Benson, Vermont, a lady of rare refinement and intellectual gifts. She died at East Saginaw, December 23d, 1887, mourned by the large circle of friends to whom she had endeared herself by the charm of her lovely character. In the nearly half century of happy married life, there were born to this devoted couple, eight children, viz., Daniel K. (died 1842), Frances Lucy, Kate Augusta, Daniel Kent, Ralph (died 1855), one died in infancy, Mary Elizabeth, and Ralph Erastus. Mr. Loveland has found it pleasant for many years to seek the milder climate of California for spending the winter months, and in March, 1894, was married to Miss Helen Crittenden of San Francisco, a lady of refinement and culture. Mr. Loveland is highly esteemed as a liberal and public spirited citizen, and one who while not for many years taking an active part in public affairs, is recognized as a man who takes a deep interest in all that concerns the welfare of the city, state or nation. Originally a Henry Clay whig, he, while residing in the State of New York, was elected to the Assembly of the State (1856) from the Essex County district, and on the expiration of his term was renominated, but declined to accept. The Senatorial district, however, which comprised the counties of Essex, Warren, and Clinton counties, nominated him to the State senate, and elected him by a handsome majority. At the end of his term he declined further political preferment. Since the organization of the Republican party he has been an active supporter of its men and measures. In his religious convictions Mr. Loveland is a Baptist, and has been an office bearer in that denomination for many years. Mr. Loveland is an excellent type of the average lumberman of the past fifty years, in his intelligence and public spirit, qualities which to a pre-eminent degree have characterized the lumber fraternity of the past.

Daniel Hardin.—Among the older and most influential of the lumbermen of the Saginaw valley, Daniel Hardin of Saginaw, is entitled to especial mention. Mr. Hardin was born in Plainfield, Otsego county, New York, May 7th, 1820, his father Nathan Hardin of an old Connecticut family, having removed to the State of New York in 1798, his mother also being a native of Connecticut. Daniel was accorded such educational advantages as were accessable in the country community of that day, when the farm work of summer gave ample opportunity for digesting the lessons of the winter school. At the age of seventeen years he exchanged farm work for a connection with a brother in a general store, at Leonardsville, Madison county, under an arrangement which continued for three years, when he became sole proprietor, and for twenty years conducted the business in connection with farming, and in company with others, in the establishment of a manufactory of agricultural implements. In 1865 he removed to Saginaw where he has since continued to reside. Here he entered into business relations with W. S. Green and his son Charles H. Green, under the firm name of Green, Hardin & Co., and purchase was made of a saw mill located in the southern portion of Saginaw city, hitherto known as the Hall & Simpson mill, and also acquired a flouring mill and a planing mill, all of which, under the wise and intelligent action of the members of the firm, have from time to time been renewed with the most modern devices adapted to each, and have been maintained, the peer of similar institutions in the northwest. With the introduction of the Roller process in flour manufacture, the firm was not backward in discerning its advantages and was the first in the valley to introduce it. This branch was conducted by a son-in-law and son of Mr. Hardin under the firm name of Brand & Hardin, and has a wide reputation for the character of its product. The planing mill also is noted for the exceptionally fine character of its work, embracing as it does the finer finishing required by carpenters and builders. The saw mill of the firm was also maintained at the highest point of efficiency for an annual production of 20,000,000 feet, its machinery consisting of one circular and one gang, with a full complement of machinery for the edging and trimming of lumber, and with quality, rather than quantity as the incentive, was rated at a production of about one hundred thousand feet per day; it has for several of the later years been known as the Green, Ring & Co. mill, Clark L. Ring being for a time interested. The company, however is composed of W. S. Green, Daniel Hardin, Charles H. Green, Charles Harten of New York state and James Malcomb of Saginaw. Mr. Hardin at one time withdrew from the firm for a period of about four years, but again returned to his first connection. The pine land purchases of Mr. Hardin in connection with the Messrs. Green, have been very extensive, comprising several large blocks in Gladwin and other counties, from which the mill was supplied for a period of twenty years. While the saw mill was run under the firm name of Green, Hardin &

Co., the planing and flour mills were known under the firm name of D. Hardin & Co., and Brand & Hardin. In 1893 Mr. Hardin purchased an entire township of pine lands in the lumbering district of the Georgian Bay, Canada, which he subsequently disposed of to the Eddy Brothers of Bay City. He has also from time to time, purchased and sold large blocks of timber lands in the country tributary to the Saginaw valley, and has extensive investments in the famed timber of the State of Washington, and at one time was interested in a large tract of Southern pine lands in Louisiana. In connection with the saw mill the firm erected salt blocks with capacity for the manufacture of 50,000 barrels of salt per season, by this means utilizing the waste of the saw mill which otherwise would entail great expense in its disposition. In addition to his business as a lumberman, Mr. Hardin has taken an active part in matters relating to the growth and prosperity of the city of his residence. He was one of the organizers, and from 1880 to 1888 was president of the Citizen's National Bank of Saginaw City, and during the latter year aided in the formation of the Commercial National Bank of which he has since been the president. He was married in 1840 to Miss Lucy Brown of Brookfield, New York, of the four children the issue of this marriage, but one now survives, a daughter, Emily P., wife of J. F. Brand. Socially and in business circles Mr. Hardin has ever held a deservedly high position in the esteem of his fellow citizens, who have found him forward in all that tended to promote the interests of the city of his adoption.

Samuel H. Webster.—Among the older and most highly respected lumbermen of the Saginaw Valley who have been connected with its trade from the days of its early prominence when its volume was supposed to be inexhaustible, but who have been spared to see the day of its decadence, and practically of its demolition, must be named Samuel H. Webster of Saginaw.

Mr. Webster was born in New Hampshire, in 1822. His father was a farmer, and the early years of the boy were alternated between work upon his father's farm and the district school, from the attainment of an age at which either was practicable. On reaching the age of twenty years, Samuel in company with Henry Baxter, took a contract for building a section of railroad in Rutland county, Vermont, taking stock in the company in payment, and selling the same in Boston at a discount of fifty per cent. On completion of this contract Mr. Webster in company with Mr. A. W. Wright, rented a hotel in Boston, and remained in this business for the ensuing three years, when turning his face westward, he, in 1847, reached Detroit and took an interest in a grocery store. In 1855-6 he went to Saginaw, having in the meantime purchased some pine lands on the Cass river, which he now began to lumber, and floating the logs down the river, found a customer in the McEwen Brothers, who had a mill at Lower Saginaw, as Bay City was at that time called. There were no boom companies on the rivers at that early day, and the young man found it necessary personally to superintend the work from the cutting of the logs to the running of them down the river and delivery in the mill boom. The McEwens at that time were not the possessors of a superabundance of wealth, any more than was Mr. Webster, but they had established a trade with Shepard, Sheriffs & Smith, a prominent lumber firm at Chicago, and were enabled, as was not unusual in those days, and down to a much later period, in obtaining advances upon stock to be sawed, and delivered at a later period in the season. Mr. Webster continued lumbering on the Cass for several years, before transferring his operations to the Bad river and also the Pine river emptying into the Tittabawasse. In 1860 Mr. Webster entered into partnership with Myron Butman and the firm built a saw mill and salt works at Zilwaukee, the partnership continuing for three years, when Mr. Webster withdrew and began the erection of a mill and salt works at Carrollton, opposite and near to the now thriving city of East Saginaw, which was just beginning the era of prosperity for which it soon after became noted. Later he built a second mill at Bay City and has since operated without partners. The mill at Carrollton, had a capacity for cutting about seventy thousand feet per day, while the capacity of the mills at Bay City was from seventy-five to eighty thousand feet each. These mills were operated by Mr. Webster for many years, until 1870 when he sold the Carrollton mill to Charles W. Grant & Co. who have since operated it. Previous to this, he in 1862 purchased, and for many years operated the mill at Zilwaukee, known as the Hill mill, in connection with which were extensive salt works. The mills at Bay City were later known as the "Eddy" mills, the "Hamilton & McGregor" mills having been sold by Mr. Webster to these parties. The Hamilton & McGregor mill was on the site near twenty third street, known for many years as the McCormick mill, a mill having been for many years operated on this spot by the Hon. James J. McCormick. One of the Bay City mills is yet standing but that at Carrollton was destroyed by fire. Mr. Webster has been recognized as among the more active and wide awake operators of the Saginaw Valley. The first mill in which he was interested in connection with Mr. Butman, was sold to Mr. Leadbetter, a Maine lumberman who was well known in the valley for many years. Mr. Webster has owned and operated many large tracts of timber lands not alone in the country tributary to the Saginaw Valley, but as well in the Upper Peninsula, and Lake Superior region, and the timber country adjacent to the Georgian Bay in Canada, and as well in Louisiana. He has for several years given more attention to the handling of timber lands, than to active operations in manufactured lumber. He was among the earliest to comprehend the inevitable demand for the valuable pine timber lands of the State, and from his first advent into the State, made it his business to secure as much as possible, and during his business career has been among the largest operators in such lands, and it is safe to say has had, and still has a knowledge of existing conditions, second to no other man in the State. Mr. Webster is a Republican in politics, but has never been an office seeker nor active politician, having devoted his time and energy to the cultivation of the business interests with which he was connected. He may be termed a pioneer in the now immense salt industry of the State, having in his connection with Mr. Butman erected the third salt block which was erected after the manufacture of salt became an assured fact in the valley. As will be seen in the main history of this volume, the humble beginning in 1881, has now reached a volume of three millions and three quarters barrels per year, and from an initial price of three dollars per barrel it is now sold on the dock of the salt block, for but fifty cents per barrel. During his connection with the business Mr. Webster has owned and operated five different salt blocks.

Mr. Webster was married in 1849 to Miss Angelina Rice of ——, Vermont, and has one son Benjamin F. who has been connected with his father in business ever since he was old enough to become interested in business affairs. Mention will be found elsewhere of his career in life.

Mr. and Mrs. Samuel H. Webster have for a period of twenty-eight years made their home at the Bancroft House in East Saginaw. He is a stockholder in many of the mercantile institutions of the valley, a director in the First National Bank, and is connected with the Saginaw Valley Insurance Company. Few men have had a wider experience in the lumber and salt industry of the State of Michigan, and few have exercised a more salutary influence over the business circles with which they have been connected.

Benjamin F. Webster, son of Samuel H. whose biographical sketch will be found elsewhere in this volume, was born September 8th, 1853, at the City of Detroit. While of a tender age his father becoming interested in the lumber business, and superintending his own camps during the winter months his young son may almost be said to have been brought up in the woods of the Cass and other logging streams of the far famed Michigan forests, and to have grown into the life of a lumberman, from his earliest infancy. For many years the boy's parents kept him with them in the logging camp, until reaching an age when his education became imperative, he was placed in the schools of Saginaw. His boyhood education in the woods had given him what might be called a complete education for the duties of a lumberman and he at once entered his father's office, and was given charge of the saw mills at Bay City, both of which fell under his management for several years, and to so good purpose that he soon became general manager of the immense lumbering interests of his father, both in the logging and the manufacturing branches. He is now and for some years has been interested in timber lands in Lake Superior and the Georgian Bay districts, and also in Mississippi. He is a man who commands the respect and confidence of the business men of the Saginaw valley, and is as well held in high esteem in social circles. He is a director in the Saginaw Valley Insurance Company, and in the First National Bank of East Saginaw. He was married in 1879 to Miss Leona Livingston of Saginaw. Very few of the young men of wealthy parents have developed into so good a degree of citizenship as has the subject of this sketch, and it is not unlikely that the camp life of his extreme youth, combined with the example of an energetic and hard working father, and an intelligent and devoted mother, was the very training which was requisite to bring out the best that was in the boy, and this is but intensified in the man. That there is something in the atmosphere of the pine woods to broaden the perception and arouse the latent talent which may lie hidden in a boy, none can truthfully deny, and in case of B. F. Webster we find that even the influences of a college life could not eradicate the beneficial influences of a few winters in the logging camp and the inhaling of the balmy odor of the forests.

Myron Butman.—Among the oldest, best known, and highly esteemed lumbermen of the Saginaw valley, is Myron Butman who was born at Milan, Ohio, October 5th, 1825, the son of John S. Butman of that town. Myron was educated in the schools of Milan, completing his education at the Huron Institute. Quite early in life he embarked in the retail lumber business in connection with a mercantile venture at his native town, continuing it until 1855 when he sought wider fields for his enterprise and going to Michigan, settled at Saginaw where he engaged in a more general lumber business. Not long after, he entered into partnership with Samuel H. Webster and the firm purchased a saw mill at Zilwaukee, of James H. Hill, which they operated until about 1865 when they sold the mill to Alvan J. Leadbetter.

In 1865 Mr. Butman formed a co-partnership with Amasa Rust, under the firm name of Butman & Rust, which firm continued until the death of Mr. Rust in 1893.

In 1871 the two firms, Butman & Rust and Rust & Hay, bought of James Watson and M. W. O'Brien the old mill at the foot of 17th street in Bay City, rebuilt it and operated it under the firm name of Hay, Butman & Co. until 1885, when Butman & Rust bought out the Rust & Hay interest and operated it until the fall of 1891, and in the following year it was dismantled, the timber supply having by this time failed to an extent which would not warrant further continuance. This mill was during its later years of operation, one of the best mills in the valley, its capacity running up to ninety thousand feet per day. Its timber supply was obtained from the Tittabawasse river and other tributary streams, and the firm acquired an enviable reputation as the manufacturer of a high grade of lumber, largely as the result of the excellent judgment of Mr. Butman as a land looker, which enabled the firm to secure exceptionally fine blocks of pine lands. The first tract purchased by the firm was in town 19, north, range one east, on the Tittabawasse, and this was supplemented by many extensive tracts acquired from time to time, and from which the firm continued to stock its mills, up to the close of its operations. The exceptionally fine character of the stock, combined with especial care in its manufacture, the element of character being of greater consideration than that of quantity, the lumber of this mill possessed a reputation which caused it to be highly esteemed in eastern markets, and running largely to the better grades, it was always among the first to find a purchaser among those who relied upon the Saginaw river for their lumber supplies. It is needless to say that the firm prospered and from a cut of eight to ten million feet per season, increased to fifteen and twenty million. Soon after acquiring the mill property, a salt block was added which consumed the offal of the mill in the manufacture of 20,000 to 30,000 barrels of salt per year, this being, since 1861, one of the leading industries of the valley in connection with the lumber manufacture, utilizing as it did the exhaust steam of the saw mill by day, and turning the mill offal, hitherto an item of no little expense to dispose of, into a valuable fuel for the night run, thus enabling the manufacture of this necessary article of general use, at a much reduced cost over any competing market. Mr. Rust of this firm died (as is elsewhere mentioned) in 1893, at an advanced age, both Mr. Butman and himself being among the oldest residents of the Saginaw valley, having taken up their residence there, at so early a day, that blanket Indians were as yet no uncommon sight in the street.

Mr. Butman is president of the Bank of Saginaw, is a member of the Board of Trade, and is interested in the Allington-Curtis Manufacturing Co., and other industrial enterprises, such as are designed to supplement the lumber industry which has reached a period of decline. Mr. Butman resides at 620 Michigan avenue, in the city which for forty-one years has known him as an honored citizen.

Eastman Lumber Co.—The plant and offices of this company are located on the Carrollton road at Saginaw, Mich., where they have 25 acres of ground and a fine lumber yard. The plant was first established by E. O. and S. L. Eastman & Co., in 1886, and they also had a plant on the east side of the river. In 1888 their old mill burned and in 1890 they built the present planing mill, which is in close proximity to three railroad systems and consequently their shipping facilities are of the best. February 1, 1895, the Eastman Lumber Co., was formed, with E. O. Eastman, president, and S. L. Eastman, secretary, treasurer and general manager. In addition to this plant they have a saw mill at Beaverton, Mich., which cuts from 25,000 to 30,000 feet per day, of hardwood, hemlock and pine obtained from 3,000 acres of timber which they own in Gladwin county, and the stock is brought to the Saginaw yards and from there distributed by rail to various points. The planing mill is doing a very extensive business in general planing, which necessitates the employment of from sixty to seventy men and a large force in the woods at logging. The father of the Eastman Brothers was L. H. Eastman, a well-known lumberman of the Saginaw valley, a member of the firm of Warner & Eastman, who, in 1859 built a saw mill on Water street which was operated up to 1890, when it burned. Mr. Eastman died in 1876 and Mr. Warner in 1891. The capacity of the saw mill was 100,000 feet per day and amounted to from 15 to 20 million feet each year. It was in the possession of some member of the Eastman family for thirty-one years, while another mill was also operated by them up to 1870. The Eastmans were among the pioneers of the lumber trade in this section and have witnessed the magnitude to which it has grown. The elder Eastman came thither in 1853 from Detroit, but made his first location in the state at Mt. Clemens in 1838. While a resident of Detroit he was in the mercantile business and upon locating in Saginaw opened a foundry and machine shop, and here he, later, gave considerable attention to the manufacture of salt. He was a leading man of this section for many years, a member of the Board of Trade and president of the Saginaw & St. Louis railroad company. He had four sons: Clarence, who is in the hoop and stave business at Lyons; O. E., S. L., and E. C., of Saginaw. E. O. Eastman is the manager of the logging in Gladwin county, while S. L. Eastman is the general manager in the yard and planing mill at Saginaw. The former is now forty-two years of age and the latter thirty-seven. They have inherited their father's fine business talents, public spirit and upright character, as well as his political opinions all being staunch Republicans.

Hon. A. T. Bliss.—Among the more prominent of the lumbermen of Eastern Michigan, must be named Col. Aaron T. Bliss, who for the past thirty years has ranked among the most enterprising and progressive men of the Saginaw valley. Col. Bliss was born May 22d, 1837, at Peterboro, Garrett county, New York, his father Lyman Bliss being a farmer of that section. Aaron attended the district school of the neighborhood, the advantages of which were supplemented by a four months' course at a select school, and this with the work upon his father's farm engaged his attention until the call came in 1862 which summoned the patriots of the land to its defence, and the patriotic spirit of his ancestry found assertion as his, the first name on the list, headed the gallant band which as the Peterman Guards of the tenth New York Cavalry, reported for duty at the rendezvous at Elmira, New York, where the company was consolidated with others and did good service in its country's cause. Mr. Bliss was made a non-commissioned officer at first, but speedily advanced to the rank of first lieutenant, and in 1862 was elected captain of the company, later being breveted major, and taking part in many battles, being captured by the enemy while upon what was known as "Wilson's raid" at Stony Creek, south of Richmond, and being held a prisoner of war at Salisbury, Columbia, Andersonville and Macon, Georgia, experiencing the horrors which were so grievous a blot upon the Southern escutcheon; he was one of the six hundred prisoners who were placed under the fire of their own friends at Petersburg, during what was known as "Butler's retaliation." Being transferred to the stockade at Columbia, South Carolina, he succeeded in making his escape, and found his way to join Sherman's army at Savannah, reaching there two days before the evacuation of that city. He was now sent to New York, and soon after joined his own command which was then at Petersburg, Virginia, and continued in command of his company until the close of the war, having been in the service for three years and six months, the six months representing the hardships and the horrors of the prison pens. Receiving an honorable discharge, he in 1865 went to Saginaw, and during the fall and winter of that year was in the employ of "Tift" Jerome in his logging camps on the

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Tobacco river, and the following summer found employment in a shingle mill.

And right here we may call attention to a fact which at that time caused amazement to foreign dynasties and peoples who were not accustomed to see the soldiers of a great war settle down to the arts of peace, resuming their occupations from which the roll of the drum and the blare of the trumpet had called them. Captain Bliss was but one of the many hundred thousands who put aside and practically forgot the honors of military title, when the cause for military service ceased, and returned to their homes to accept honorable employ of any nature which promised pecuniary recompense; and this spirit is what has made our nation respected and dreaded as no other nation can boast.

In the fall of 1866, Mr. Bliss in company with his brother, Lyman W. Bliss and Doctor J. H. Jerome, formed the partnership of A. T. Bliss & Co. and took a contract for the cutting and skidding a quantity of logs upon lands adjacent to the Tobacco river, a tributary of the Tittabawasse. Their means were but small, and they had but three teams with which to prosecute the work, but the venture was successful, and laid the foundation for the abundant success which was realized at a later day. In the spring of 1867 the brothers operated the Jerome mill at Zilwaukee on the Saginaw river, and the following year being joined by another brother Joseph H. Bliss, they purchased the mill which was of capacity for the manufacture of eight or nine million feet per year. For this property they agreed to pay the sum of $33,000 of which from their accumulations they paid the sum of $3,000, and obligated themselves to pay five hundred dollars per month until the entire sum was liquidated. This mill was equipped with one single circular and a stock gang. During this year Mr. Bliss was married to Miss E. M. Phelps, an eastern lady, and in this the day of small things with the struggling firm, she like many other Rachels whom the lumber business of the past developed, did not scorn to render aid in the oversight of the mill boarding house, and in the economical use of the various supplies which such an operation demands. In writing a history of the lumber trade it should not be forgotten to give due credit to the brave women who so nobly stood by the side of the struggling husband, and cheered him on in what was but too often a day of darkness and exhaustive struggle against adverse conditions, which surmounted, enabled each in the days of prosperity and success to feel that the goal had been reached by the united effort of both. In the summer of 1868 advantage was taken of a season of drought which curtailed the log crop for a time in which to make extensive repairs and additions to the mill in the shape of a new engine and modern machinery, which increased the capacity of the mill to the extent of from three to four million feet per season. In the fall of 1868 Mr. Bliss took a contract from James Eastman to lumber a large tract of pine from stump to manufacture and piling on the dock ready for shipment and also a contract with Jackson, Bucktell & Co. of Akron, Ohio, to log on the Tobacco and to drive, manufacture and pile on the dock. After operations extending over a period of three years Mr. Bliss purchased the Eastman tract. He at this time was associated only with his brother Lyman, under the firm designation of A. T. Bliss & Brother, Joseph having withdrawn from the firm in the fall of 1868. The firm prospered and continued to increase the volume of their business, purchasing large tracts of land on the Tobacco and Tittabawasse rivers, and being also interested with ——— Irwin of New York and Smith & Newlin of Saginaw in other tracts of considerable size, some of which were so located as to be available for lumbering by the logging railroad about that time constructed in Clair county by the lumber firm of Wright & Ketcham. This road was among the pioneer railroads built for logging purposes, that method of handling timber which was located at a distance from a driving stream, having commended itself by reason of its superiority and economy over the slower methods by horse team, the new method having the additional advantage of being almost wholly independent of the mutations of weather. In connection with Messrs. Hill and Green of Saginaw, Mr. Bliss purchased a large block of pine lands on the Tobacco, and now formed another connection with George C. Sanborn and Isaac Bearinger, and purchased the "Litchfield Mill" at Carrollton, which they stocked and operated. Mr. Bearinger later sold his interest to his partners in the company and in 1887 Mr. Sanborn died, when Mr. Bliss became the sole owner of the mill and has since operated it. Mr. Bliss later with two of his nephews, A. P. Bliss and O. T. Brown, formed a copartnership for the operation of the Zilwaukie mill, but soon after Mr. Bliss bought his partner's interests and personally continued the business. About this time he, in company with Lyman and Charles S. Bliss, bought the mill at the west end of the railroad bridge at Carrollton, known as the Shaw & Williams mill, and the firm of C. S. Bliss & Co. operated it until it was burned in 1890, and immediately rebuilt, and is still in commission. Connected with this mill is a complete and extensive planing mill plant, suited to the changed conditions of the later years of the lumber trade of the valley, in which shipments direct to the retail dealer in the country, demands the dressing of the lumber into shapes and conditions which were formerly the handwork of the carpenter and builder.

Colonel Bliss was in 1888 honored with an election to the house of representatives in the national congress and found it necessary to place the Zilwaukie mill in the hands of his nephews who operated it for a couple of years and until in 1890 when Mr. Bliss organized the Central Lumber Company, which was incorporated with a capital stock of $50,000, and which has since been doing a successful business. This company of which Russell A. Alger Jr. is a stockholder, holds large tracts of pine lands in the Georgian Bay region of Canada, the logs from which are towed across the lake to the mill, it relying largely at the present time upon that source of supply; the company is also the owner of a large body of timber lands in Lower Canada. The mill at Carrollton is at this time owned and operated by Colonel Bliss, who, in connection with it operates a farm of six hundred acres. In addition to the holding of large bodies of timber lands in Michigan Mr. Bliss has a sixty million tract in the Iron region of Minnesota together with large tracts in different localities, including an estimated two hundred and forty million tract of redwood in Mendoceno county, California, a six hundred million tract of the noted fir of Oregon, and a three hundred and eighty million tract of fir in the State of Washington. He also has a tract of fifteen thousand acres of the yellow pine of Virginia, and a large tract of the same in Arkansas. His holdings if combined would largely exceed one thousand million feet of standing timber. Mr. Bliss is largely interested in other enterprises than those which have been enumerated, including the Thompson-Jackson planing mill, and box factory at Saginaw, and the Cook Shingle company; he is a director in the Saginaw County Savings Bank, and the National Bank of Saginaw, and as well of the Commercial Savings Bank. With the several saw mills of which we have spoken, are connected extensive salt blocks, that at the Carrollton mill having capacity for the production of fifty thousand barrels per season.

Mr. Bliss is a Republican in politics and has exercised an extended influence in not only local, but as well in State politics. He was a member of the State senate in 1882, and in 1883 was elected to represent his district in the lower house of congress, where he occupied prominent positions upon the committees of agriculture, labor and salt. He was *aide de conge* upon the staff of General Alger during that gentleman's occupancy of the gubernatorial chair of Michigan, and was for five years treasurer of the committee on the Michigan soldiers' home, and one of the committee on buildings for that institution. He is also treasurer of the National Republican League. In 1896 he was a prominent candidate before the State Republican convention for the honorable office of governor.

Mr. Bliss is a member of the various Masonic bodies at East Saginaw, Past Eminent Commander of Saginaw Commandery Knights Templar, and of A. A. O. N. M. S. 32d degree. It is too often claimed that these days are degenerate and that a young man stands little chance of success in the battle of life as compared with the advantages of a past generation, but we think that a candid consideration of the history which is herein presented of a man who, beginning in a humble way, has worked his path to opulence and honor, effectually disproves the allegation that the opposing forces in the path of any young man are sufficient to warrant his discouragement if he has the will and the enterprise to seize the passing opportunity, and brains enough to turn adversity into prosperity. We have followed the farmer boy to the honors of faithful service in patriotic defense of his country, to the humblest occupation as a laborer in the lumber camp and in the shingle mill; we have seen him struggling to get a start in business, and we have followed him through adverse circumstances to business success and to the honors which an admiring constituency felt to be the due of a faithful and upright citizen, and we close this brief record with the assurance that the success which attended the life of Aaron T. Bliss is within the reach of every young man who, with equal energy and integrity of purpose, will set his mark at the topmost round of the ladder of life.

C. S. Bliss & Co.—Among the enterprising lumber firms of Saginaw, Michigan, special mention is due to the representative house composed of C. S. Bliss and Col. A. T. Bliss. This is one of the leading concerns of the kind in the city, and the yards and mill are of long standing. C. S. Bliss is the head of the firm and general manager. The company bought out the old firm of Backus Bros., who had bought the mill and yards of Shaw & Williams several years before. In 1887 Bliss & Co. bought the plant. At an early day this mill cut from 90,000 to 100,000 feet daily, but when the old mill was burned in 1890 and a new one erected, the latter had a capacity of 16,000,000 to 18,000,000 feet a year. This new mill is equipped in first class shape. About forty men are employed in the mill and yards, the latter consisting of about twenty acres, with railroads convenient. The company enjoys a large retail trade and especial attention is given to pine, hardwood and hemlock, they having had large camps in Midland, Gladwin and Isabella counties. The timber is sent by water and by rail. The company will put in about 6,000,000 feet the coming year. In the past years this concern owned a tract of pine and hardwood in Isabella and Midland counties which they operated for several years. The tract bought by this company in 1887 had about 25,000,000 feet. Since that time logs have been bought largely on the railroad with several tracts of timber.

In the fall of 1895 the company secured a tract of about 25,000,000 feet in the Saginaw valley. About one hundred men are employed in the woods during the winter season.

C. S. Bliss was born near Fond du Lac, Wis., in 1859, and grew to manhood in the woods of that state. Later he learned the blacksmith trade, which he followed until 1877, then went to Toledo, Ohio, and on account of an accident was unable to continue the trade. He then entered the employ of Dr. and A. T. Bliss, his uncles, under the firm name of L. W. Bliss & Co., who were actively engaged in the lumber business. He became head shipper on the docks, but subsequently went from there to Defiance, Ohio, to take charge of the planing mill and yards of the company at that point. He next established a retail lumber yard at Hickville, Ohio, and conducted this for two years, or until 1881, when he came to Saginaw. Here he went into the woods and was a log scaler during the first winter. He is familiar with every phrase of the business. He was for a time employed by A. T. Bliss & Bros. until 1887 when he and Col. Bliss established the business which is netting them satisfactory returns. Mr. Bliss is a Republican, and was a delegate to the Detroit State convention in 1896. He is a member of the board of trade, and the Saginaw Lumber Dealers' Association. He is also a Master Mason, a member of the National Union and is known in the Concatenated Order of Hoo Hoo as member No. 4057.

William Callam, proprietor of the extensive flouring mill at Saginaw, Michigan, was for many years one of the more prominent lumbermen of the Saginaw valley. He was born in 1837 at Toronto, Canada, where his earlier days were spent and in the schools of which city he received his education. At the age of sixteen he began his first experience in lumbering in the woods of Norfolk county, and a few years later had charge of a saw mill at Houghton Center on Lake Erie, finding market for his product at Cleveland and Buffalo. Norfolk and the adjoining county of Elgin were at that time leading centers of lumber manufacture, with a quality of timber resource unexcelled by any other portion of the northwest. This district was completely denuded by the early seventies. After six years' operations at Houghton Center, Mr. Callam went to Minnesota and later to Chicago, and in 1863 found his way to the Saginaw valley where for two years he was in the employ of Wellington Burt, one of the leading operators of the valley, having charge of his camps in winter, and of the saw mill at Saginaw in summer. In the fall of 1865 Mr. Callam purchased a tract of 160 acres of pine lands in Gladwin county, and one team commenced cutting and banking the one and a half million feet of timber which it yielded; this he ran down the Tittabawasse river and found market at Saginaw. During the following winter he increased his holdings of timber lands in the same neighborhood and continued the business on a larger scale, disposing of a portion of the product in the log, while sawing a portion at the mills of the Saginaw river. A year later Mr. Callam purchased a tract of 440 acres on the Chippewa from which he cut four million feet and sold the remaining timber, making a new location upon the Chippewa Salt, where he secured 4,000 acres of its excellent pine land where he operated until 1870, with a product of about 14,000,000 feet per year which he procured to be sawed and sold in its manufactured state. In 1870 he rebuilt the "Grant" mill at Carrollton on the Saginaw river, giving it a capacity of five to six million per season and after operating it until 1875 sold it to C. L. Grant & Co., having manufactured during his occupancy about 25,000,000 feet of the high grade pine of the Chippewa and Chippewa Salt, upon which his logging operations had each year been carried on. After putting in about 4,000,000 feet of logs from Pine river, in 1878, Mr. Callam purchased 7,500 acres of timber lands at Cecil Bay in the straits of Mackinaw and the following year erected a mill containing one circular with capacity for cutting 5,000,000 feet per season, locating it at the mouth of the Little Carp river, from which he for ten years marketed five to six million feet per year, by shipment to Chicago. This was the beginning of the extensive manufacture of lumber in this northern region, which later became prominent as a manufacturing district. In 1890 Mr. Callam sold this mill and its lands to Winkleback & Gould of Chicago and has not since operated in lumber to any great extent. In the course of the later operations Mr. Callam became somewhat interested in vessel property, owning the schooner R. G. Gibbs of 200,000 capacity, and the H. C. Winslow carrying 300,000 feet which he employed in the transportation of his lumber. In October 1892 he purchased the Jesse Hoyt flouring mill property at East Saginaw, which he rebuilt with the most modern machinery and has since been engaged in operating in connection with his son Frank W. under the designation of William Callam & Son; this operation is under the management of Frank W. Callam, who is the eldest son of William Callam, and was accorded the best advantages afforded by the excellent schools of East Saginaw, supplemented by a course at Ann Arbor, and the excellent business education given him by his father.

Mr. Callam Sr. is a director in the Home National Bank of East Saginaw, and has taken an active part in many of the industrial operations of the valley. In politics he is a staunch Republican, and as a man and citizen he is held in the highest esteem in the community.

Fred A. Dudley.—The business enterprises of Saginaw, Michigan, are of an important character, ably and successfully carried on, and have secured for this town a reputation of which any place of its size might well be proud. Prominent among its ablest business men stands the name of Fred A. Dudley, who is actively and earnestly engaged in the shingle business. He also handles some lumber, but makes a specialty of shingles. Mr. Dudley was born in Fond du Lac, Wisconsin, in the year 1866 and made his home there until 1884 when he came to Saginaw. Here he first engaged as a lumber inspector on the river and was thus employed for a year. After this he was inspector for Judd & Cross for three years, but later became salesman for the same firm and served in that capacity for two years. The following two years were spent as secretary of the firm of George F. Cross & Co., but since that time he has been engaged in the shingle business, buying and selling, and is making a complete success of this, finding market largely in the eastern, principally the New England States, both for pine and cedar shingles to the extent of 40,000,000 per year, which volume he has averaged for the past five years. His office is in the Eddy building. In his political predilections Mr. Dudley is a Democrat. He is a member of the East Saginaw club, and is a social, whole-souled citizen. He is married and resides at 575 North Franklin street.

Michael Jeffers.—It is doubtful if any man has been more conspicuous among the lumbermen of the Saginaw valley than Michael Jeffers. Mr. Jeffers was born in Ireland in 1833, coming to this country in 1840 with his parents, who settled at Goshen, Orange county, New York for a year and in 1841 removed to Birmingham, Michigan, where Michael attended the public school and academy. In 1852 being now nineteen years of age he went to Detroit and opened a grocery store, combining with it a drug department. This not suiting the active temperament of the young man, who felt equal to a more active life, he in the winter of 1853-4 went to Saginaw and in connection with O. M. Hyde of Detroit erected a saw mill, hauling the machinery upon wagons from Detroit. This mill contained two mulay saws, and was accounted one of the best mills of the day in that portion of the State. Some years later a circular saw was tried for a time, but it being in the early days of its introduction, and its care not fully understood it was thrown out. This mill it may be stated, was in later years known as "the Whittier," also as the "Merrill" mill, and with improved machinery added from time to time has long been accounted one of the best mills on the river (see history Charles Merrill). The first winter's supply consisted of 6,000,000 feet of the celebrated Cass river pine cut in the neighborhood of the later village of Bridgeport. The first lumber shipped from this mill was upon the schooner Jesse Hoyt, upon an order from the Chicago, Rock Island & Pacific railroad for shipment to Chicago, and the captain of the Hoyt dying of cholera on the voyage, the officers of the road declined to receive it or allow the vessel to land at their docks, and the cargo which was largely of piece stuff was sold to C. Mears & Co. for $12 per thousand, which for that day was a particularly high price. In 1855 the mill was sold to Charles Merrill of Detroit and operated for some time by Thomas Palmer (afterward United States senator from Michigan) a son-in-law of Mr. Merrill, who was soon after succeeded by Joseph A. Whittier, who has until the present time continued in charge and management of the Merrill interests. Mr. Jeffers had accumulated a large amount of pine lands when the financial revulsion of 1857 bore heavily upon him, and visiting New York for the purpose of disposing of them he traded a portion for a planing mill plant, which he brought to the valley and sold out by piecemeal. Soon after he established a general store at East Saginaw, and dealt in pine logs, timber, lumber and real estate, and for many years past has ranked as the largest individual tax payer of East Saginaw, having been recognized as one of the heavier lumbermen of the valley. As an interesting illustration of the conditions prevailing in the early days Mr. Jeffers relates that in 1858-9 he purchased Cass river stumpage from the Litchfield estate, paying one dollar per thousand for logs averaging 700 feet each (principally twelve-foot logs) and in 1860 abandoned the contract, preferring agricultural scrip at $90 per quarter section of 160 acres. Cass pine a few years later was considered cheap at $5 to $8 stumpage, and still later bore any price one cared to ask for it.

Mr. Jeffers, although somewhat eccentric, has always stood high in the estimation of the citizens of the valley, has represented its interests in the State legislature, and has ever been recognized as one of the foremost to take an active part in all measures looking to the advancement of the interests of a region which upon his first advent, was not thought to be good for anything but its pine timber, but which now teems with thriving cities, and is the center of vast manufacturing and agricultural interests, in the development of which Mr. Jeffers has been one of the most active and influential factors.

Arthur Hill Co. (Limited) is the successor of one of the oldest and most successful lumber firms of the Saginaw valley, and was incorporated in 1891 with a capital stock of $750,000. It succeeded to the business of James H. Hill & Sons and that of Hill Bros., both firms having for several years been among the best known and respected of this portion of the State. The former firm was composed of James H. Hill, whose sons Arthur and Wilbur H. were associated with him in business. After his death in 1887, and that of his son Wilbur H. in the same year, the separate interests were united in the present stock company, with Arthur Hill president, James E. Vincent secretary, and Eben N. Briggs treasurer, and its operations have since been conducted upon the extensive scale which marked the business of the individual firms, and include the holding of vast bodies of land and the manufacture of lumber not alone in the lower peninsula of Michigan, but as well in the upper peninsula and the Georgian Bay district of Canada. A history of the Hill family will be interesting, including, as it does, much of the early history of the lumber trade of the State. James H. Hill was born at Put In Bay Island, Ohio, in 1816, a son of Daniel Hill, who was a native of Massachusetts and was married and living in Detroit at the beginning of the war of 1812-14. He was under arms and was made prisoner of war at the disgraceful surrender of Detroit by General Hull. With a number of turbulent fellow prisoners whom the British desired to be rid of, he was taken across to the Canadian shore, given a pass to the American lines at Niagara, and from there made his way back to his old home in Massachusetts. However, he soon started on his return to the west and reaching Erie, Pennsylvania, assisted in the hurried completion of the fleet of Commodore Perry, joined in the expedition, and helped with the other patriots in securing the naval victory which gave the commodore renown, and established the supremacy of the young nation upon the great lakes. Soon after peace had been declared he took up his residence at Put In Bay Island in Lake Erie, the locality having pleased him when he first saw it when Perry's fleet put in there for repairs after the fight, and where his death occurred in 1826. His widow located the military land warrant for 160 acres to which she was entitled and settled in St. Clair county, Michigan, where her son James H. grew to manhood. When he attained his majority she gave him an unimproved forty acres, out of which he soon made a farm which he tilled in the summer months, spending his winters in lumbering, putting logs into the Pine river, a branch of the St. Clair. As the business of lumbering increased Mr. Hill increased his interests along this line, traded his farm for "an old rotten vessel," as his neighbors called it, and engaged in lake freighting in summer and lumbering in winter, which course he continued to pursue until he had accumulated quite a fleet of small craft, which were principally engaged in carrying lumber to Ohio and New York ports from the St. Clair river region, then the principal lumber manufacturing stronghold of the State. In 1854 he began lumbering on his own account and two years later sold his interests in his vessels, removed to Saginaw and began lumbering on Sturgeon creek and the next year bought the saw mill then known as the Whitney mill, which was located near the west end of the Johnson street bridge and which is still standing and known as the Patterson mill. In 1864 he built a new mill with modern improvements for that date, near the north end of the village of Carrollton on Saginaw river. As his sons grew up he associated them in business with himself, after giving them good educational advantages, and the firm of James H. Hill & Sons was established and continued until 1887. The company carried on extensive logging operations in the Saginaw valley, employing small armies of men in the different branches, and were also extensively engaged in the purchase and sale of pine lands in the upper and lower peninsulas, in the country tributary to Duluth, Minnesota, and in the Georgian Bay country of Canada. During the last few years of his active and busy life the father had practically retired from active participation in the cares and anxieties of the business and they naturally fell upon the shoulders of the sons, in whom their father reposed implicit confidence. One son, Gardner B., was accidentally killed while raising the smokestack upon the Carrollton mill in 1864. He was a most promising young man of twenty-two years of age. Another son, Clarence M., was born at St. Clair in 1855, became a prominent lumberman and is a member of the incorporated company of Arthur Hill & Co. (Limited). Wilbur H. Hill, who died in 1887, was one of the best loved and most generous-hearted men in the Saginaw valley and one of the most highly respected. He was born upon the home farm in St. Clair county in 1841 and was among the earlier pioneers in the oil fields of Pennsylvania. About 1870, in connection with his brother Arthur, he commenced land and lumbering operations as a member of the firm of Hill Bros., but they subsequently consolidated their business with that of their father. Arthur Hill, the for many years recognized acting head of the business, is esteemed one of the most level headed business men of the State. He was born at St. Clair, but received his education principally at the schools of Saginaw and the university at Ann Arbor. On completing his course in civil engineering at Ann Arbor, he took a practical course in engineering, in connection with the survey of a railroad route in Minnesota. During his college course he was for one season connected with the United States Coast survey, having been recommended for appointment to that service by President Haven of the university. His varied experience in this line laid the foundation for his after success as a skillful woodland surveyor and in estimating timber land, which was for some years his occupation, and he thus had many opportunities for investing his means advantageously in choice tracts, and when unable to secure them for himself disposed of his minutes to others for cash, or for a fixed proportion of the lands entered, in which enterprise his brother Wilbur was also interested. The firm of Hill Bros. soon commenced operations for itself, and the firm of Arthur Hill & Co. (Limited) have operated to the extent of 40,000,000 annually. One of their leading fields of operation at present is the Georgian Bay, with sawing done at Midland, Ontario, their product finding market principally in the east, shipments being made both by water and rail. The company is interested in shipping on the Pacific coast, holding stock in the Saginaw Steel Steamship Co., and also in the Progress Steamship Co., Mr. Hill being president of both. The vessels ply between San Francisco and Panama on the south and the Puget Sound cities on the north. Mr. Hill is also interested in the Cranberry Lumber Co. of Duluth, Minnesota, of which he is treasurer, and whose annual cut is 20,000,000 feet; it operates a logging railroad of fifteen miles; also in the St. Anthony Lumber Co. of Whitney, Ontario, whose mill has a capacity of 300,000 feet per day, backed by one of the finest tracts of standing white pine timber in the northwest and perhaps on the continent. The capital stock of this company is $1,500,000, and E. M. Fowler of Detroit is president; Arthur Hill, vice-president; E. C. Whitney of Ottawa, secretary and treasurer. Mr. Hill is a Republican in politics, but maintains a thorough independence in his political action. He has three times been elected mayor of Saginaw and was five years president of its board of education. He neither seeks nor desires political office, but has at all times a lively interest in State and National affairs, and in his own words thinks it a "much finer thing to be a king maker than king."

Clarence M. Hill is a native of Michigan, born at St. Clair in 1855, and was educated at Worcester, Massachusetts, in the Highland Military academy, finishing up with a course in law at Ann Arbor. When he was but twenty years old his father, James H. Hill (see sketch elsewhere) pushed him to the front and gave him encouragement to start in business for himself. Young Hill was not slow to improve his chances and his early career in the lumber trade began in 1875-6 when he operated upon the Kawkawlin river, lumbering about 4,000,000 feet per year for the next eight years. The logs were sent to Bay City, where they were sawed into lumber. After taking out thirty-two million feet from the Kawkawlin, Mr. Hill, in the winter of 1882-3, removed his operations to the Cedar river in Gladwin county, where he took out a large amount of timber during the next three years. Gradually extending his business into the buying and selling of pine lands, he, in addition, found time to handle about ten million feet of logs and lumber per year. The sawing was largely done at his mill at Carrollton, Michigan, where he operated for four years. Its capacity was from ten to twelve million feet per season. He next lumbered a tract of 25,000,000 feet on Waiska Bay, Lake Superior, belonging to Arthur Hill & Co. (Limited), of which company he was a member, the sawing of which was done at Sault Ste. Marie and the marketing at Chicago and eastern points. In 1887 he invested his means in a 45,000,000 tract in Minnesota, and in 1892 commenced operating at Duluth, this district having within a few years developed into an extensive lumber center. Here he purchased some large tracts of timber in St. Louis county and other sections tributary to Duluth. At the village of Mesaba he purchased the plant of the Mesaba Lumber Co., including a saw mill of 75,000 feet daily capacity, and a planing mill in connection with it. He opened a store for the convenience of his operatives and the citizens of this sparsely settled neighborhood. He had also a mill at Merritt, in the county of St. Louis, which was burned in 1894, and which has never been rebuilt. His lands on the Mesaba range were found to be quite rich in a high grade of iron ore, and indeed it was on the land owned by Mr. Hill that the iron ore of that remarkable range was first discovered. His operations in the Lake Superior country are from 10,000,000 to 15,000,000 feet per year, all of which is handled by rail. Few men enjoy so high a repute for activity and for honorable and extended enterprise as Mr. Hill. He is a member of the firm of Arthur Hill & Co. (Limited) and has shown his public spirit in behalf of the city of his lifetime residence, in the building of the Hotel Vincent on Washington and Germania streets, East Saginaw, and in other meritorious works of improvement. Early in life he became interested in timber and lumber from associations connected with the business of his father. Mr. Hill was married to Miss Susie R. Richardson and they have been blessed with three children. Politically Mr. Hill affiliates with the Republican party, but does not let political prejudices and predilections interfere with his business. He resides with his family at 523 South Jefferson street, Saginaw.

He also handles large tracts of timber lands in Michigan and Minnesota and is largely interested in the productions of iron ore in the Mesaba range.

Washington S. Green of Saginaw was prominently identified with the lumber interests of the Saginaw valley for over thirty years, his residence in Saginaw City dating from 1864. He was born at Leonardsville, New York, in 1814, at which place he was engaged for many years in the manufacture of agricultural tools. In the spring of 1864 he purchased a flouring mill at Saginaw City and not long after he, in company with Daniel Hardin, purchased the saw mill of Hale & Stinson, located in the southern portion of the city, which for many years was operated under the name of Green & Hardin, and of late years under that of Green, Ring & Co. This mill was in commission until the year 1895, when from the scarcity of stock and a depressed condition of the lumber market, it ceased operations. The mill when purchased by Mr. Green was a single circular mill, but with the lapse of years has undergone many changes and with the introduction of modern devices for the more economical manufacture of lumber, reached a daily production of over one hundred thousand feet, or an aggregate of from twenty to twenty-five million feet annually. The firm has been a large purchaser of lands on the Tittabawasse river and its tributaries, the Tobacco, Swan creek, and other branches, and for the last three years of the mill's operation, its supplies came from a large tract in Canada, being towed in rafts from Georgian bay. Mr. Green being well versed in wood craft, had until within a very few years the principal charge of the outside business of the firm in the woods and in the care of the camps, a department which remained under his supervision in connection with his son C. H. Green, who has always been interested with his father, since his removal to Saginaw. Mr. Green was also interested in the Bradley-Ramsey Lumber Company of St. Charles, Louisiana, which boasts one of the best plants in the south and with a capital stock of $150,000 and surplus of double that amount, is one of the largest among the extensive concerns which of late years has been engaged in developing the resources of that section, having a large trade in the manufacture of special bill stuff for railroad purposes, in addition to a large lumber trade in Texas and the west. The manufacturing capacity of the mill is 40,000,000 feet yearly, with stock for twenty-five years to come. He was also the owner of a tract estimated at one hundred million feet of timber, in the State of Washington. Practically speaking Mr. Green was connected with the lumber trade of the Saginaw valley from the period of its main development, and with a record of thirty-six years in the business, could justly be classed among the oldest operators in the State of Michigan, and in fact may be said to have devoted his life to the lumber trade, while finding time to be interested in many other industries which have been promotive of the interests of the valley and of the nation, being interested in the Bank of Saginaw and a recognized friend of all enterprises having for their object the advancement and prosperity of his city in a majority of which he at times had considerable interest, and in most of which he was associated with his son Charles H. as a party in interest. He had one daughter, the wife of Daniel W. Briggs, cashier of the Bank of Saginaw. While an ardent Republican Mr. Green never aspired to be called a politician, or to hold political office. As a citizen no man could hold a higher place in the esteem of his fellow citizens, and few were spared to exceed the allotted time of man with a more honorable record in all that pertains to good and useful citizenship. He resided at No. 904 North Michigan avenue, Saginaw, west side, in the enjoyment of the well earned results of a busy life, and the companionship of loving children, grandchildren, and great-grandchildren.

During the past ten years Mr. Green had been largely interested in mining, which by his personal attention, had won him success. In August, 1893, he made a sale of a large property of which he was the principal owner, situated in the San Juan district of Colorado. He had been since that time, interested with his son C. H. Green in mining in the Kootenai district in British Columbia. Mr. Green died November 11, 1897, and the large concourse of friends who attended the funeral obsequies testified to the high esteem in which he was held as a man and a citizen.

Wells, Stone & Co.—The property of this firm is owned by the estates of C. W. Wells and F. C. Stone, and by A. W. Wright, who is the present manager and head of the business as surviving partner. The business was inaugurated in 1868 for doing a general lumbering supply business. They began purchasing timber extensively in 1876 in Roscommon, Clare and Gladwin counties, lumbering the same and sawing at different mills on the Saginaw river until 1882, when they consolidated their lumber business with that of Wright & Knowlton, who were the owners of a large planing mill, and A. W. Wright & Co., owners of a large saw mill, forming the A. W. Wright Lumber Co., which has continued up to the present time. This firm has owned many fine tracts of timber land. Mr. Wells died in Minnesota in 1893, and

December 5 of the same year Mr. Stone died in Saginaw, leaving Mr. Wright the sole remaining partner. He is executor of both the Wells and Stone estates, together with Benjamin E. Wells of Duluth, Minnesota, of the former, and Harriet F. and E. P. Stone of the latter. Mr. Wells was born in 1841 and Mr. Stone was a man of fifty-seven years of age at the time of his death. Mr. Wells was a native New Yorker, and in 1862 enlisted in the 118th New York volunteers, and rose to the rank of major. In 1867 he came to Saginaw and for two years was a member of the firm of Northrup, Wells & Co., lumbermen's supply dealers. Mr. Stone was a Vermonter and his early life was spent in clerking in Waterbury, and later he became a merchant. In 1867 he came to Saginaw and entered the employ of Northrup, Wells & Co., and in 1868, as above shown, became Mr. Wells' and Mr. Wright's business associate. Mr. Stone took an active interest in State politics and was a member of the Republican State central committee for some years before his death. He was a member of the board of public works and schools, and particularly interested himself in the cause of education, being one of the prime movers in the building of the city high school and the school building of the Tenth ward, which bears his name. He was a man of more than ordinary mentality, was a level-headed, keen and practical business man, and his death was a loss to the community. He married in 1860 Miss Cornelia Pearson of Haverhill, New Hampshire, a sister of J. H. Pearson of Chicago. She died in 1873, after which he married Miss Harriet F. Chadwick of Newbury, Vermont, and by her became the father of George C., who is now in the university of Michigan, and Kittie L., who resides with her mother in Saginaw. E. P. Stone, son by first marriage, was born in Waterbury, Vermont, in 1861, and is the manager of the affairs of Wells, Stone & Co., under A. W. Wright. He was educated in the local schools, and since 1880 has been connected with the lumbering interests of the company. He built a railroad twenty miles long to the Muskegon river in 1886, and in 1891 went south to Lake Charles, Louisiana, and became connected with the Bradley, Ramsey Lumber Co. of that place and discharged the duties of secretary and treasurer for three years, until the death of his father, when he returned home to settle up the estate. In January, 1894, he sold his interest in the Louisiana firm and since that time has made Saginaw his home. He owns the home built by Governor Jerome and occupied by him during his lifetime on Van Buren street. He married Miss Mary L., daughter of Dr. Hanchett of Chittenango, New York, and has three children. Politically he is a Republican.

William H. Edwards.—For many years subsequent to 1860 William H. Edwards was a prominent figure in the lumber trade of the Saginaw valley.

Mr. Edwards was born at Huntington, Fairfield county, Connecticut, in 1816. His father, William E. Edwards, was born in 1784, was a soldier of the war of 1812, and assistant in the defense at the siege of Danbury, Connecticut, near which town he followed the occupation of a farmer.

William H. enjoyed the limited privileges of the schools of the day, combined with employment in a woolen factory, until he attained the age of eighteen years, when for a year he worked in a machine shop, acquiring a general knowledge of the crude manufactures of the day.

In 1837 the family removed to western New York, settling at Lockport, then assuming importance as a prominent town on the Erie canal, its chain of locks furnishing such a dam as was needful to encourage the erection of factories using water power. Following the occupation of a farmer for some years William in 1844, in connection with his brother John Edwards, purchased a woolen factory at Lockport, and in 1848 added a gate saw mill to the property, subsequently substituting a mulay saw, and in 1852 a four-foot circular, which was at that time the second which had been introduced into that region, and soon after added a mill for the manufacture of steamed and cut shingles, which for many years formed a favorably received element of the building trade. Up to this time the shingle business had been confined almost wholly to "rived and breasted" shingles, but the advent of the cut shingle soon stimulated inventors to the production of machinery for sawing this important adjunct to the building industry, and but a few years later these had wholly superseded both the "breasted" and the cut shingle. In 1851 Mr. Edwards extended his lumber operations to include the purchase and shipment of lumber from Canadian and other points, to the eastern markets, and for a number of years the historian was to a greater or less degree associated with him in securing needful supplies. In 1858 Mr. Edwards removed to East Saginaw which offered a more extended field of operations.

From this point he carried on quite an extensive business in logging from lands located on the north branch of Flint river, the timber of which was of exceptionally fine character, and later, with the exhaustion of these lands, operated largely on the Tittabawasse and in the county of Ogemaw, being one of the prime movers in the organization of the county, one township of which is known as "Edwards." From about 1870 he operated a large shingle mill on the west bank of the Saginaw river opposite East Saginaw, and in 1873 assisted the writer in the erection of a one circular mill at Georgetown, Ogemaw county, on the line of the Michigan Central railroad. This mill was burned in a forest fire which occurred in 1875.

Mr. Edwards was an enthusiastic Democrat in his political opinions and was so devoted to the principles of that party that in 1870 he was only too ready to assist in establishing The Saginaw Courier, a daily devoted to the advocacy of Democratic principles, which subsequently, through constant advances of money in its support, fell into his hands, and drew heavily upon his fortune, and in the course of years, entailed heavy losses in its final disposition to a stock company. The Democratic party of Michigan cannot too highly estimate the sacrifices of William H. Edwards, who, never seeking or accepting office, sank his fortune in its behalf.

Mr. Edwards was one of the most genial of men with a heart ever ready to respond to the claims of friends, or the relief of the needy, and probably never had an enemy during his long life, numbering eighty-one years. Jovial in disposition, he saw the bright side of every question, and was little disposed to take a dark or gloomy view, even when financial disaster left him in his advanced years practically penniless. Where William H. Edwards was, was mirth and sunshine, and none could long remain in his presence without a dissipation of any symptoms of "blues," which might be disposed to develop; his sunny disposition soon clearing away the clouded atmosphere.

In 1857 he was married to Miss Harriet Beardsley of Bridgeport, Connecticut, who, with two sons, Charles and William H. Jr., and one daughter, Isabella, were left on February 9, 1897, to mourn the sudden death by apoplexy of the devoted husband and loving father, while the community mourned for a good citizen and honored merchant.

Briggs & Cooper.—No subject is of more interest or more worthy of attention than the lumber business. Thousands of men are employed annually in this great industry and the amount of lumber shipped from Michigan alone is most wonderful; Wisconsin, too, is right to the front in this respect. Many men have made fortunes out of the northern woods and others are well on the road.. Among those who have made a success of this business, stand the names of Briggs & Cooper. This firm was established in 1887 by Daniel W. Briggs and James Cooper who succeeded the firm of W. B. Stillman & Co. Mr. Cooper bought out that firm in 1887 and continued with Mr. Briggs, who with Mr. Stillman had established the business in 1880. The plant is located on the middle grounds near the Mackinaw street bridge, and they there have about fifty acres given to yards and plants. The capacity of the mill per year is about 12,000,000 feet, and they are now manufacturing hardwood and hemlock. The plant consists of a circular saw mill, and a planing mill with a capacity of 40,000 feet per day. A general planing mill business is done, but only in connection with their own stock. They handle a large car trade and for the most part, ship to eastern states. They manufacture flooring, siding, etc., and maintain a large stock of lumber in their yards, usually about 5,000,000 feet. This firm is doing logging in Ogemaw and Roscommon counties, have 30,000,000 feet standing, with a railroad into the timber land. In 1895 they built eight miles of railroad to the camps in Roscommon county, finding it cheaper to log by rail. They have carried on extensive operations in Clair and Gladwin counties, having bought most of their logs there up to the last few years. Since then they have worked their own timber lands, and their average yearly output is from 8,000,000 to 12,000,000 annually. They handle hard maple flooring also, and find a ready sale for their goods in the east.

Mr. Cooper has been connected with the lumber business since 1880, and is familiar with all its details. He was born in Ogdensburg, November 21, 1857, and when four years old was brought to Saginaw, Mich., by his father, who had followed merchandising in Ogdensburg for many years. Young Cooper received his educational training in the public schools of Saginaw and later, entered the employ of the First National Bank of East Saginaw, as clerk, a position he held for six years. After that for a year he was in the abstract office of H. P. Smith and then held the office of deputy city treasurer for two years. Still later, he engaged in the lumber business with G. B. and S. L. Wiggins, under the firm name of Wiggins, Cooper & Co. A mill which was established at South Saginaw was burned in 1885, but soon after was rebuilt by our subject and conducted until 1887. Then Mr. Cooper withdrew to form the present concern. Although he started in a small way, Mr. Cooper's careful business methods and good judgment served him in good stead and he is doing a good business. A Republican in politics, although not an office-seeker, he is held in high esteem in social circles, and is a member of the Masonic fraternity, including lodge, chapter and commandery.

Daniel W. Briggs was born in the Empire State in 1853 but was educated in the public schools of Saginaw whither his father, Ebenezer Briggs, moved in 1861. The latter was a product of the "Old Bay State," born in Plymouth county in 1807; in 1852 he moved to Lisle, New York, where he resided for a number of years. In 1861 he moved to the Saginaw valley and embarked at once in lumbering, erecting a mill where Briggs & Cooper are now doing a thriving business. This mill was burned a number of years later, but was rebuilt in 1864 or '65, and a large business was carried on until the death of Mr. Briggs in 1872. The mill remained idle until 1884 when W. B. Stillman & Co. conducted it until 1888, when Briggs & Cooper took charge of it and made many changes, remodeling and rebuilding. Mr. Cooper bought out Mr. Stillman's interest and the firm became Briggs & Cooper. Daniel W. Briggs is now cashier of the Bank of Saginaw, a position he has held since 1888, having previously been cashier of the Citizen's National Bank for seven and a half years. Previous to holding the latter position, he was bookkeeper in the First National Bank for some time. He was also bookkeeper for the Miller, Bradley & Co. bank in 1868. His experience in the banking business has rendered him both an able and capable official. His brother, Eben N. Briggs, is treasurer of the incorporated lumber company known as Arthur Hill & Co. (Limited). Mr. Briggs takes a deep interest in all public matters and is well liked and esteemed by all with whom he has dealings. In politics he is a Republican. He is the owner of considerable land on the Pacific coast, in Washington, and has interests in other parts of the Union. He married the daughter of W. S. Green and now resides in Saginaw.

Eleazer Jesse Ring was born in Springfield, Mass., September, 1824, and died in Saginaw, Mich., July 12, 1896.

He was of old New England ancestry, some members of the family having settled in Western Massachusetts early in the 18th century, and giving their name to a village (Ringville).

John Torrent

Mr. Ring was educated in the public schools of Springfield and at the Academy at Wilbraham, Mass. He taught school at Cape Cod at the age of sixteen, and when about twenty-five years of age went to Toronto, then to Hamilton, Ontario, where he resided for several years engaged in the lumber business.

In Hamilton he was married, in the year 1851 to Miss Anne Clarke, by whom he had four children, three of whom, William L., Clarke L., and Mrs. William E. Conroy survive him.

From Hamilton Mr. Ring moved to Huron, Ohio, where he continued in the lumber business, and a few years after became a member of the lumber firm of Ryan, Johnson & Co. of Sandusky (C. N. Ryan, J. T. Johnson, E. J. Ring). In the interests of the firm he went to Saginaw, Mich., in 1862, and resided in that city until his death, retaining his relations with Ryan & Johnson until the year 1887, when he retired from active business.

Mr. Ring was never connected with any saw mill in Saginaw, but was accustomed to have his sawing done at other mills, and then to ship the lumber to the yard of the firm at Sandusky.

He was interested for a few years with Mr. C. A. Rust in a saw mill on the line of the Saginaw Valley & St. Louis railroad in working up a tract of timber located near the present village of Wheeler.

His death, which was sudden, but not unexpected, was caused by apoplexy.

Albert F. Cook.—Success in business life is usually bestowed upon the worthy, by the fickle goddess of fortune, and as the reward of mental capacity and energy applied in the right direction, with discrimination and judgment. This has proved true as regards the career of Albert F. Cook, for he is with reason, regarded as one of the leading business men of Saginaw and is engaged in a work that is both important and profitable. He is at the head of the well-known Cook Shingle Co., of Saginaw, which was organized in 1893 by A. F. Cook, Col. Bliss and L. A. Bliss, and their plant is located at Luman, Mich., near Coleman on the F. & P. M. Railroad, and near here and in Gladwin county, the company own about 22,000 acres of timber land. They are extensively engaged in the manufacture of shingles, lumber and barrels, manufacturing of the former at least 7,000,000 per year, which they sell at eastern markets. Their timber is pine and hardwood, and in connection with their other interests, they dispose of large tracts of farming lands. They have a store at the same location as their mill, for the benefit of their employes and others, from which they derive considerable profit. Mr. Cook is a native of New York State, his birth occuring near Buffalo, November 7, 1865, in which place he received his education, as also at Alden. He was reared on a farm and followed this occupation until fifteen years old, when he clerked in a store at Alden, N. Y., removing to Saginaw, Mich., in 1884, at which time he entered the employ of Col. Bliss and filled various positions until he finally became secretary of the Central Lumber Co. at the time of its formation, in which he has a one-fifth interest. He is also the capable and efficient manager of the Cook Shingle Co., is treasurer of the Patent Novelty Manufacturing Co. of Saginaw, is a stockholder in the Thomas Jackson & Co., and is interested in some timber tracts in Oregon. Mr. Cook has always supported the men and measures of the Republican party and has taken much interest in all matters of public importance. He is a director of the Board of Trade of Saginaw and socially is a member of the Masonic fraternity, in which he has attained the degree of Knight Templar. He was married to Miss Maude, daughter of C. L. Benjamin of Saginaw, and they have two sons.

Thompson, Lamb & Co.—This company which is well known in this part of Michigan and in many other states as well, was established in the year 1895 by L. E. Thompson, G. F. Lamb, and G. M. Lamb, who bought out the plant of Robinson & Jackson, and entered actively on their career as lumbermen. The planing mill was built by A. T. Bliss, and this, which is still owned by Mr. Bliss, together with a yard of eight acres, was leased by the company. The mill has a capacity of 80,000 feet per day and is operated the year round. The company handles white and norway pine, also hemlock, and the yard has a yearly output of 20,000,000 feet. Their trade extends into Michigan, Ohio and Pennsylvania, and the mill is stocked from the Duluth and Saginaw valley markets. They manufacture maple flooring, moulding, etc., and are doing a thriving business. Mr. Thompson, whose excellent business acumen and progressive ideas have brought him to the front among wide-awake, enterprising men, is of foreign birth, a native of Denmark. He remained in his native land until the year 1876, when he came to America and settled in Detroit, Mich. There he was in the employ of Robinson & Jackson for some time, but finally came to Saginaw with that company and filled the position of foreman of the yards here. Since that time he has made his home here and is now at the head of a flourishing business of his own. He resides at 907 State street.

Mr. G. E. Lamb, senior financial member of the firm, is a native of Michigan and is now fifty-three years old. He first began in the lumber business in Mountcalm county, where he remained for five or six years engaged in logging and jobbing, for a firm in Chicago. From there he went to Detroit and found employment with Robinson & Jackson, with whom he came to Saginaw, filling the position of traveling salesman. At the present time he is filling the same position for his company. For at least twenty years he has been in the lumber business, and is thoroughly posted on the subject.

G. M. Lamb, the junior member of the firm, is now twenty-six years old, but has an old head for all that pertains to the lumber business. He was born at St. Johns, Michigan, and first branched out for himself as bookkeeper for the wholesale lumber supply house of McCausland & Co. of Saginaw. With this firm he continued for seven years, winning an enviable reputation as a business man, but he is now a member of the firm of Thompson, Lamb & Co., being head manager and bookkeeper of the same.

James Tolbert.—Few if any of the lumbermen of the Saginaw valley during the past thirty-five years, have been better known than James Tolbert, who from his extended operations upon that stream gained the honorable soubriquet of "The Cass river Cork Pine man." Mr. Tolbert was a native of Steuben county, New York, where he was born January 21, 1826. His father, John Tolbert, was a lumberman and proprietor of a saw mill which having capacity for manufacturing from six to eight thousand feet per day, was considered a large mill at that time, and Steuben, Tioga, Chemung and other counties watered by the Susquehanna river formed a great center of lumber manufacture, the logs being floated to the mills and the manufactured product rafted down the river in cribs to find market at the growing towns along the river banks, to its mouth at Port Deposit, and Havre de Grace, whence it was distributed to the cities of the Atlantic coast.

James grew up in an atmosphere which was permeated with logs and lumber and naturally assisted his father both in mill and woods, acquiring that knowledge of wood-craft which in later years was to stamp him among the more extensive and practical lumbermen of the northwest. In his early manhood he began operating on the Susquehanna and its branches, in the purchase and cutting of timber and saw logs, for which he found ready market at the mills, following this business for several years. In 1862 he visited the Saginaw valley and appreciated its unrivalled facilities for the manufacture and sale of lumber, and as well the apparently inexhaustible supply and superior quality of its timber resources, and made an arrangement with Chauncey Umstead of Le Roy, New York, for the purchase of a cargo of lumber, which, turning out to the satisfaction of that gentleman, he secured the services of Mr. Tolbert for the ensuing two years in the purchase and shipment of his lumber. In 1864 Mr. Tolbert commenced operations on his own account, by the purchase of timber lands on the Cass river, cutting the logs and rafting them to the mills on the Saginaw river, a business which he has followed to the present day, being among the most extensive operators on that far-famed stream, so long as it continued a source of supply. As elsewhere noted, the timber of the Cass held a pre-eminent position in the lumber market of the northwest, for the quality of its stock, which included a larger proportion of that favorite variety known as "cork" pine, than any other stream in the entire lumber districts of the north, the designation arising from the softness of its fibre and its lightness, it, in these respects resembling cork, to a greater extent than other varieties. It is ripe timber, usually of large size, hollow in the butt, and remarkably free from knots. The timber of the Cass has for many years been accepted as the standard by which the value of a timber tract was determined, as any timber approaching the quality of that upon the Cass was priced according to the extent of the resemblance. While Mr. Tolbert's operations were largely upon the Cass, they were not wholly confined to that stream, but included good selections upon other of the tributaries of the Saginaw river. It is the custom of loggers to mark the end of each log with a hammer as it is put into the stream, so that in the multiplicity of a mixed lot of logs mingling together in a drive, each owner may identify his property at the sorting boom. Mr. Tolbert's marks included several brands, principal among which were "M, O, X. T." and "O * T." and the product has always been in demand from the eastern trade. In addition to his manufacture at Saginaw, Mr. Tolbert maintains a wholesale and retail lumber yard at Ann Arbor, Michigan, where he disposes of from fifteen to twenty million feet per year. His early training in the forests of Steuben county, N. Y., followed up for nearly forty years in Michigan, has rendered him an expert judge of standing timber, and probably no man in the State enjoys a better reputation as a "land looker." He has first and last examined as many tracts of timber land as any other one man in the State. He has also found time to be a bank director, holding that position at one time in the Bank of Greenville, Mich. He is a member of the Masonic bodies, a Knight Templar and a 32d degree member of the Consistory. In politics he is a Democrat. Few men can boast of a larger circle of friends, or of holding a higher place in the confidence of the lumber fraternity with which he has for fifty years been connected, or in the esteem of the public generally.

Lewis C. Slade.—Of the younger element of our prominent, energetic and influential citizens, none are better known than Lewis C. Slade, one of the wide-awake, active lumbermen of Saginaw, Mich. He is a native of Michigan, born in Detroit, January 5, 1854, and the son of Horace T. Slade, whose death occurred in Saginaw in 1895. The elder Slade was a native of New Hampshire, but as early as 1853, he moved to Michigan. After receiving a good practical education, Lewis C. Slade started out to make his own way in life and in 1869 located in Saginaw, where he became employed in a grocery store. Sometime later he found employment on the docks and in the lumber yards, and in 1875 started to work for Jesse Hoyt with whom he was connected for many years. From a very subordinate position at first, he worked his way up, until he became the leading man of the Hoyt business. In 1884 he organized a business for himself, known as Stephens & Slade, having formed a partnership with Charles J. Stephens. They opened an office in what was then the Hoyt Block and bought and sold on commission. Mr. Slade continued with Mr. Stephens until April 1887, when he bought out his partner and opened his present yard. He started in a small way, but his business increased in a wonderful manner, being found trustworthy and reliable and having the confidence of the people. He now has a yard on the F. & P. M. railroad, and has good railroad facilities, being also on the Grand Trunk and Michigan Central. He buys logs and has them cut in saw mills to order, also log run lumber and assorts to yard grades, distributing from twelve to twenty millions a year, all rail shipments. For years Mr. Slade has conducted the business alone, and is thoroughly posted in all that pertains to the lumber trade. Although actively engaged in this business he does not lose sight of his duties as a good citizen and takes an active interest in all good enterprises. In politics he is a Republican, and for several years he was a member of the

A. V. Mann

City Council; also is a member of the Saginaw Lumber Dealers' Association, of which he is president and which was organized December 15, 1890. Mr. Slade is also a member of the National Lumbermen's Association and is an honorary member of many retail lumber associations in Ohio, Pennsylvania and Michigan. For many years he was a member of the Michigan State troops and a charter member of the old East Saginaw Rifles, now called Company E, Michigan National Guard, at Saginaw, Michigan. He was at one time President of the Board of Directors of Company E and when he resigned from the National Guard, was an officer on the staff of Colonel C. S. Brown, Third Regiment, Michigan State troops. Socially, Mr. Slade has always been in close touch with the best of our citizens. Is a Knight Templar and a charter member of the East Saginaw Club; also member of the Saginaw Board of Trade, incorporated in 1876. The membership of the Board of Trade is made up from the leading business men, and has had during its life, on its roll of membership, all of the most prominent business and professional men in the city. Mr. Slade has been, for two years and is now, the president of this Board, he being the first of the younger business men to fill the presidency of this strong and popular business organization. Everywhere Mr. Slade is known, his word is as good as his bond and he has the respect and good will of his fellow citizens, and that this is not confined locally, is evidenced by his appointment by the Governor of the State in the summer of 1896, as one of the commission to represent the interests of Michigan at Tennessee's Centennial Exposition in 1897. Mr. Slade married Miss Joanna Roberts of Detroit, June 17, 1885.

W. B. Mershon & Co.—There is no name more favorably known to the lumber trade of Michigan than that of W. B. Mershon, who stands at the head of the well-known firm of W. B. Mershon & Co. This firm is one of the largest of its kind in the State and is a notable example of stability and success. Augustus H. Mershon, the father of W. B., was a well known lumberman in Saginaw valley for many years. He came from Canada, where he had charge of a saw mill, but previous to that he had been engaged in lumbering in New York State. When he came to Saginaw in 1851 he first engaged with Jesse Hoyt to erect the first planing mill in the Saginaw valley. This plant was located where the Wickes Brothers' boiler shops now stand, and was equipped with a planer and an edger. The planer of that day would only dress one side at a time and the shavings would be of the width of the board. This plant also had a machine to make siding. The lumber to stock the mill came from the only two saw mills in the city of Saginaw at that time. The lumber that was brought in on wagons came from Pine Run, and was Cass river cork pine, and would bring from ten to twelve dollars a thousand, being nearly all first clear. As there was little demand for this in the valley, much of it was shipped to Chicago by sailing vessels, and there a branch yard was established. Mr. Mershon furnished the lumber for the building of the old McVicker's Theatre in Chicago at a time when he had to "wait for his pay." Business was good and everything was in a prosperous condition up to the time of the panic of 1857. At that time clear lumber dropped down to eight dollars per thousand, and no sale, and the mill had 15,000,000 feet on hand. As a result of this distressing time, Mr. Mershon came out $60,000 in debt. This took him nearly all the remainder of his life to pay up. However, when he died in 1885, he had accumulated a little money. Mr. Mershon was known as one of the most successful lumbermen in the valley. After failing in 1857 he began as an inspector and shipper of lumber, but in 1860 he again established a planing mill, on the site of the Charles Lee plant and put in a machine for boring pump logs then used for salt wells. This was before galvanized iron pipes were used. At this he was unusually successful, but sold out to Major Wiggins. Subsequently he took charge of the large business of Haskins, Martin & Wheeler, Chicago men who had bought the J. H. Hill saw mill and salt block, and had charge of this for some time. He made a study of salt and it is claimed that he at this time made more salt from a cord of slabs than any other man in the valley. All the salt was shipped to Chicago. Following this Mr. Mershon next took charge of the business of the Rochester Salt & Lumber Co., this firm having a plant on the ground where the plant of W. B. Mershon & Co. now stands. They had a saw mill and salt blocks, and their concern was well equipped in every respect. Mr. Mershon had charge of the works and also in company with A. G. Bissell built a small planing mill near the plant, and was the originator of the idea of a finer manipulation of lumber at the mill, in assorting it for car trade, and working the coarser into boxes, etc. Here they had just got a nice start when the hard times of 1873 came on, and the mill lay idle a long time. About this time Mr. A. H. Mershon was appointed State Inspector General of lumber for the Saginaw district, and held that office until the law went out of existence; the Rochester Salt & Lumber Co. lost their mill by fire in the meantime, and in 1876 W. B. Mershon bought out A. G. Bissell & Co., the elder Mershon having practically retired from business. He was a typical representative of the old lumbermen of Saginaw valley. In politics he was a Democrat.

W. B. Mershon started in a small way in 1876, and alone. By industry and good management he soon built up one of the best lumber trades in the State. Until 1890 he continued alone and then formed a stock company with a capital of $250,000. In 1892 his business had increased to the handling of 40,000,000 feet of lumber. The W. B. Mershon Company have a saw mill, a planing mill, a salt block, and a box factory, and are doing a general business in car trade. They have a fine system of band re-sawing machines, a good machine shop, and all told the best equipped plant of the kind in the State. The company manufacture 30,000 barrels of salt annually, their lumber going to the eastern market, their salt to the western. The officers of the company are: W. B. Mershon, president, E. C. Mershon, vice-president, and Henry Quin, secretary. W. B. Mershon was born in the year 1856 and attended the public schools until seventeen years old. At an early age he worked as tally boy during the school vacations in lumber inspection. His grandfather, Elias J. Mershon, was an old New York lumberman, who also came to Saginaw valley and was in business until his death in 1865. Although actively engaged in business Mr. Mershon does not lose sight of his duties as a citizen and has held a number of prominent positions. He was alderman of Saginaw for four years, and mayor during the years of '95 and '96, and is a leading business man and one who has a host of warm friends.

Mr. Mershon was early impressed with the importance of a finer manipulation of lumber at initial points of manufacture, and soon after commencing business for himself erected a box factory for the utilization of the coarser varieties of lumber which were in but light request for shipping purposes, and by ingenious devices of his own, added many valuable economic features, which greatly reduced the cost of manufacture, through which he was enabled to practically revolutionize this branch of the lumber business, while bringing an added value to the vast quantities of neglected stock the inevitable result of closer lumbering in the woods, as the policy of "cutting clean" was to an increased extent adopted by the lumbermen. Later his appreciation of the need of a more careful saving in the manufacture of lumber, led the inventive genius of his brother, E. C. Mershon, to experiment with a re-sawing machine, by which not only the daily output of a saw mill was increased, but also effected a great saving of the loss in saw dust, and consequent increase in the product of a log. In the operation of this machine, which is manufactured and sold by W. B. Mershon & Co., and which has become a prime favorite with manufacturers, the main saw of the mill cuts thick plank, which, being passed through the band re-saw, are cut into one inch boards at a loss of less than one-half the saw dust waste produced by the main saw. Few men have exercised greater ingenuity than the brothers Mershon, or shown greater appreciation of those minor points in lumber manufacture, which, with increased competition and decreased timber surplus, are found necessary to ensure the highest measure of success in lumber manufacture.

H. J. Yates of Melchers & Company, manufacturers of and dealers in all kinds of lumber and shingles, represents a noted concern, which has in an important way, contributed to build up the extensive business and superior reputation of Saginaw as a center for the manufacture of lumber. This firm was established in March, 1894, and is composed of Henry Melchers, C. L. Judd, H. J. Yates and Henry Melchers, Jr. H. J. Yates is the general manager and Henry Melchers, Jr., is one of the active men in the office of the company in Saginaw. Henry Melchers, Sr., is city treasurer of Saginaw and C. L. Judd was for many years cashier of the First National Bank of East Saginaw. This company has its office at the corner of S. Jefferson and Euclid streets. They handle all kinds of lumber and shingles and do a car trade.

H. J. Yates is a product of England, born in London in 1845, and when but eight years old came to America with his brother and two sisters. They located in Macomb county, Michigan, in 1853, and on a farm there young Yates grew to mature years. When but a boy he enlisted in Company K, Fifth Michigan Cavalry, and served three years, participating in many battles. After the war he returned to his home and entered a stave mill there, but in 1867 went to Elsie, where he was engaged in the stave business for some time. Later he came to Saginaw, but located in Midland county where he was the first settler of Lee township. Midland county was at that time a part of Saginaw county. He soon became interested in the lumber business in the Saginaw valley, and operated four logging camps, putting in as high as five million feet in a year. For the most part he did a jobbing business. He is well posted on the lumber subject, having been interested in it to a greater or less extent since the war. Mr. Yates resided in Midland county for many years. He obtained his land from the government and when he and his wife first located there they carried their goods two and a half miles through the woods. They built a log house and in this resided, happy and contented, until their removal to Saginaw. Mr. Yates started in the lumber business in Saginaw under the firm name of Yates & Whippell, and this continued for two years. In 1889 he started the firm of H. J. Yates & Co. and engaged in the general wholesale and retail lumber business up to 1892, when the firm of Yates & Addis was formed. This continued until February, 1894, when Melchers & Co. was formed. Mr. Yates is the general manager of the business. They buy stock in hardwood and pine; their mill at Crow Island, which cuts pine and hardwood, was burned in 1895, but was rebuilt with an average capacity of from 6,000,000 to 7,000,000 feet yearly and they carry a stock of from 3,000,000 to 6,000,000. Their trade is largely with Ohio and the East. Mr. Yates inspected land all over the State of Michigan for many large lumber companies in New York City and for eastern capitalists, and his estimates were generally correct, and land bought or sold on his estimate was always satisfactory. He made some long trips and sometimes would be three or four months in the woods; often he would not see a man during that time. He has logged a great deal and had much experience in wholesale and retail business. In his political views Mr. Yates affiliates with the Republican party. He is a Mason, an Odd Fellow, a Maccabee, and a member of the Grand Army of the Republic. Miss Knowles of Canada became his wife and they have one son, William H. Yates, who is interested in the business. Mr. Yates has ever been a practical and wide-awake business man and success has attended his efforts.

Henry Melchers, Jr.—Among the young business men of Saginaw, Mich., is Henry Melchers, Jr., son of Henry Melchers, the city treasurer. He is now about twenty-eight years old and was educated in the high school of Saginaw and in the Royal Polytechnic Institute of Munich, Germany, graduating in the civil engineering department of the latter in 1892. After five years spent in Europe, he returned to his native land and took a government position at Sault Ste. Marie, Mich. Mr. Melchers was also in the city treasurer's office for some time and in 1895 purchased an interest in the Melchers Lumber Company. and has since been with that concern. Like his father, he is a Republican in politics, and is also a member of the Masonic order.

William C. McClure.—This gentleman has since 1867, but more particularly since 1879, been recognized as a potent force in the lumber business, not alone of the Saginaw valley but of the northwest. He is a native of Ohio, having been born in Miami county in 1842. He attended the common schools of his neighborhood, and in 1861 entered Miami University, in which he was a student when the tocsin of war was sounded, and his patriotism compelled him to respond to the call for volunteers, for a short term of enlistment, in the Eighty-sixth Ohio Infantry. The next year this regiment was re-organized and he re-enlisted upon a second short call, as it was during the times when it was confidently expected that the rebellion would be quelled so speedily that only three months' enlistments were demanded. Returning from the camp, Mr. McClure re-entered the university, but a third call came from the President for more troops for a short time, and to this call Mr. McClure again responded, enlisting in an Ohio regiment from Piqua, Ohio, serving altogether for about one and a half years in the armies of West Virginia, East Tennessee and the fortifications about Washington. In 1865 he entered the employ of the Mitchell & Rowland Lumber Company of Toledo, as bookkeeper and general manager, and in 1867 went to Michigan in the capacity of general agent for that company, then known as extensive operators in the lumber business. In the fall of 1869 he entered the employ of John McGraw & Co. of Bay City, who in that year commenced the erection of the largest saw mill in the valley at Portsmouth, now South Bay City, completing the same early in the summer of 1871. He remained with this firm until 1872, when he became associated in business with A. P. Brewer, their connection lasting until the destruction of the McGraw mill in July, 1872, when he was expressly urged by Mr. McGraw to enter his employ and assist him in rebuilding the mill. He did so, and until the spring of 1879 discharged the duties of resident general manager of the business. In this year in company with Jethro Mitchel, of Cincinnati, Ohio, and John A. Hamilton of Toledo, Ohio, under the firm name of Hamilton, McClure & Co., he purchased the mill of W. R. Burt & Co., one of the principal saw mills on the Saginaw river, and at the same time a tract of land estimated to contain 300,000,000 feet of standing timber. Mr. Hamilton died in September, 1886, and the surviving partners purchased the interest of the estate, and continued the business under the name of Mitchel & McClure. About this time the firm commenced the purchase and grouping together of large tracts of pine lands near Duluth, Minnesota, and by the time their Michigan tract was exhausted they had succeeded in grouping a quantity there estimated at 350,000,000 feet of pine in Minnesota and Wisconsin, tributary to Duluth. From 1889 to 1891 the firm, in connection with Wellington R. Burt, Phil H. Ketcham and Amasa W. Wright, together with Wells, Stone & Co., built what is known as the Durand railroad, from Durand, on the Detroit, Grand Haven & Milwaukee railroad in Shiawassee county, to Bay City, thus giving to the Saginaw valley railroad connection with the Grand Trunk and other roads centering at Durand. In the winter of 1890-1 Mitchel & McClure commenced the erection of a mill at Duluth which with one band saw, one circular, and two "rosser" gangs (the "rosser" being a machine which planes two sides of a log ready for the gang, in place of siding down with a saw), had capacity for the manufacture of 250,000 feet of lumber in ten hours, which had become the established day of labor. This constituted the largest mill in the now rapidly developing lumber center. Up to this time the mills at and near Duluth had confined their trade to rail shipments, to the territory to the west, but Mitchel & McClure determined to send their product to eastern markets by water as heretofore, and they soon found their example copied by other mills there, until at the present time the annual cut of the eight or ten mills of that region, which has reached a volume of 300,000,000 feet, is almost wholly manufactured and sold in the same manner. In connection with their mill the firm constructed a logging railroad to their timber in Carleton county, Minn., which brought their logs to the St. Louis river at a point but four miles from their mill, and there a large store boom was constructed, from whence to supply the mill with logs as required for daily manufacture. Their road is also used by other manufacturers, whose logs they cut and haul, the entire traffic in 1895 amounting to 70,000,000 feet. Mr. McClure was elected president of the Duluth Lumberman's Association, at its organization in the summer of 1895. He is a director in the Tittabawassee Boom Co. of the Saginaw valley; of the Saginaw Board of Trade; the Home National Bank; and the People's Savings Bank of Saginaw. He was married February 5, 1868 to Miss Helen A. Barnett of Piqua, Ohio, and has one son and one daughter. While yet a comparatively young man, Mr. McClure is recognized as one of the most energetic, far-seeing and successful men of the Saginaw valley, where he resides, and where the main part of his life has been spent, and his enviable record as a business man has carried with it a reputation for honest dealing and integrity of character, such as may well be emulated by all who may read this record of a life of activity and ample business success, the record of which is a fair illustration of the vastness in volume to which individual operators have attained in the manufacture of a product so universally in demand that the value of the forestry industry of the nation in 1890 had attained the enormous aggregate of $1,035,000,000, according to the United States census of that year.

CHAPTER XI.—SAGINAW VALLEY—*Continued.*

GENERAL SURROUNDINGS.—THE BOOM.—AREA OF FORESTS.—CANADIAN LOGS.—PERSONAL SKETCHES OF LUMBERMEN.

THAT the Saginaw valley is entitled to pre-eminent mention in a history of the lumber industry of the northwest, will be conceded in view of the fact that it has been from the earliest days of the State's development, the central figure, around which the lumber business of a large proportion of the State has revolved, while in the main its conditions are an index of those of the State at large.

The Saginaw river is the effluent of a large number of rivers, which penetrate the larger half of the State, principal among which is the Tittabawasse, with innumerable branches extending to the north and west, dividing with the Muskegon and Manistee rivers of the west coast, the watershed of the State, to a point where the Au Sable river, with its numerous small tributaries disputes pre-eminence. Not far from the confluence of the Tittabawasse with the Saginaw, of which all these streams are but a continuation and outlet, the Shiawasse river running southward, and the Flint and Cass rivers running eastward, present creeks and arms, which penetrate to all sections of the pine forest not covered by the Black river, which empties into the St. Clair river.

The estimate of Lewis & Headley, elsewhere mentioned, is conservative in its claim that in their combined length these streams water a total area of nearly 3,000 square miles, the log product of which vast territory has been floated mainly to the mills of the Saginaw river, and for the handling of which boom companies became a prime necessity, as the increasing number of operators putting logs of various marks into the different streams, rendered it necessary that some central point should be established, at which the logs could be separated and each owner be enabled to claim his own.

To this end boom companies were incorporated by the legislature, and large sorting works erected at the mouth of the various main streams. The logs which had been dumped promiscuously into the streams at various points were floated by the current to the head of the boom works, where they were diverted from the main stream into a large enclosure consisting of one-half the river (in the larger streams), and reaching for miles up its course. At the lower end was a narrow sorting gap, through which, as each log passed, it was examined for the mark upon its end, and each owner received his own, each log being secured by a wooden pin driven into its top side equidistant from the ends, around which a rope was made fast, and enough logs gathered in "strings" to make a raft of proper size to be floated to the mills. At each banking ground where the logs are dumped into the stream, the end of each log is marked in several places with a hammer containing the letter or device adopted by the owner as his distinctive mark. These consisted in many instances of a single letter, and in others of a device such as crossed keys, square and compass, a boot, an anchor, or a square or diamond enclosing an initial letter in capitals two or three inches long. Enough hammer strokes of the letter or character were struck upon each log to ensure that, whichever side of the log floated upward, a mark would be visible, and in this simple manner the logs of a score or a hundred different owners would be effectually separated at the sorting gap, so that each owner could receive his own.

The Tittabawasse was the leading boom of the Saginaw region, as indeed of the State. The company was incorporated in 1864, although the first boom was built in 1856 by J. A. Whittier for Charles Merrill & Co., and from that date to the time of the organization of a regular boom company in 1864 about 1,700,000,000 feet of logs were rafted out of the Tittabawasse and its tributaries to supply the Saginaw mills. The Saginaw Courier in April, 1896, in speaking of this matter said:

> "The tide water of the output was reached in 1882, when 611,862,670 feet of pine saw logs were rafted and delivered. Last year only 15,000,000 feet were rafted, and the output for the present year is estimated at only 10,000,000 feet. The total output of this stream and its tributaries to date aggregates 11,848,549,293 feet, figures that almost put calculations astray. No other logging stream has floated on its bosom such a quantity of logs. The Cass river furnished only 2,500,000 feet of logs last year to the supply of the mills, and the pine timber on this stream has been exhausted. The records in possession of the writer only date back to 1864, showing the quantity of logs rafted out, a total to date of 901,039,025 feet, although a reasonable estimate puts the output of the stream prior to 1864 at 225,000,000 feet.
>
> Flint and Bad rivers have contributed to the Saginaw river mills since 1872 a total of 318,592,633 feet. Considerable quantities of logs were rafted out of these streams prior to 1872, of which no record exists. Last year only a few hundred thousand feet came out, and the pine timber on these streams has passed into history.
>
> The Kawkawlin, Pine, Rifle and Au Gres rivers empty their waters into the Saginaw bay, and these streams have contributed a large quantity of logs to the Saginaw river mills. The writer has records showing the quantity handled on the Kawkawlin river since 1872, which aggregates 329,985,162 feet. Prior to 1872 large mills were operated at Kawkawlin by D. A. Ballou and others, and over 200,000,000 feet of timber manufactured at that point. This is exclusive of the logs rafted out and brought to the Saginaw river.

The records of logging operations on Rifle river date back to 1867. Since that date there has been rafted out 1,751,933,873 feet. The pine on the stream is practically exhausted, only a few million feet now coming out.

The records show that there has been rafted out of Au Gres river since 1866 a total of 1,171,189,781 feet of pine saw logs. The pine timber on this stream has been exhausted.

The Pine and Saginin, small bay shore streams, have contributed since 1879 a total of 195,041,633 feet of logs.

All of the foregoing streams have practically ceased to be reckoned as a source of timber supply, although the area they drain still contains large bodies of hard timber and some pine. The latter, however, is now brought to the Saginaw river by rail.

In the early days of lumbering in the lower peninsula of Michigan, timber remote from rafting streams was considered of little value, by reason of being inaccessible, but with the building of railroads and the inauguration of log-hauling by rail, this timber became as valuable as that near the streams.

The Mackinaw division of the Michigan Central railroad hauled more logs in 1895 than in 1894. The figures last year were 150,000,000 feet. Total amount carried by the road the past ten years, 1,721,774,149 feet.

The log supply on the line of this road is being depleted, but it is calculated that the quantity handled the present year will be over 100,000,000 feet.

In 1895 the Flint & Pere Marquette railroad hauled logs as follows:

	Feet.
To Saginaw river	30,407,310
To Ludington	19,785,350
To Midland	1,818,880
To Flint	1,265,170
Total	53,276,710

The record of the log traffic of this road for fourteen years is a total of 1,680,631,472 feet.

A good many million feet of pine saw logs have been rafted from points on the Michigan shore north of Tawas bay and from Lake Superior to the Saginaw river, of which no records are at hand. In 1892 there came from these sources 63,000,000 feet, and in 1894 about 38,000,000. Last season only a few million feet were rafted from the sources named.

The Saginaw river mills now depend largely upon Canada for a supply, although the Michigan Central and Flint & Pere Marquette will contribute a considerable quantity of logs for two or three years yet.

The quantity brought from Canada last year to the Saginaw river was 167,500,000 feet. The total quantity of Canada logs brought to Michigan in 1893 was 184,500,000, and in 1894 the quantity was 301,000,000. Last year there was brought over 279,229,713 feet.

It is estimated that 80,000,000 feet of Canada logs will be rafted to Alpena and Cheboygan the present year, and to Tawas and the Saginaw river 270,000,000 feet; to Detroit, 25,000,000 feet."

The culminating point of lumber production in the Saginaw valley was in 1882, in which year the reported cut was 1,012,951,211 feet, dropping each subsequent year to a production of but 388,266,202 feet in 1895, at the close of which year from and including 1873 the reported production had reached an aggregate of 16,817,122,776 feet of lumber and 4,765,520,335 shingles, and from his personal knowledge of the region since 1863, the historian feels fully warranted in assuming the total production of what is known by statisticians as the Saginaw valley, from the time of the building of the Gurdon-Williams mill in 1835 to the present time, at no less than 30,000,000,000 feet. The "Huron Shore" from 1873 to 1895 reported a cut of 8,180,210,893 feet of lumber, and 1,665,359,121 shingles, to which may safely be added twenty-five per cent for the volume included in the years previous to 1873, and the timber rafted to Detroit, Toledo, Sandusky, etc., making a total volume of not less than 11,000,000,000 feet, or a grand total of forty-one billion feet of timber cut from the forests contiguous to the waters of Saginaw Bay, including a territory comprised within the boundaries of (approximately) 350 townships, equal to 12,600 square miles, or 8,064,000 acres of land, averaging 5,000 feet to the acre of the entire body, without allowance for the vast areas of plains and lakes upon which no timber was to be found.

The area of the State of Michigan is 66,000 square miles, or 42,240,000 acres, of which 40,000 square miles, or 25,600,000 acres may be set down as comprising the pine belt, and estimating this area at 5,000 feet of merchantable pine timber to the acre for the entire territory, including, as stated, vast areas or plains and other lands upon which no pine was to be found, and we have a grand aggregate of 128,000,000,000 feet as the original volume of pine which graced its forests. Many acres of this area produced as much as 20,000, and even as high as 60,000 feet, but taking the area as a whole, lumbermen have been accustomed to talk of a general average of but 5,000 feet.

In our final summing up, however, it is found that an average of 6,000 feet per acre approximates more nearly the truth, and we may safely assert that the standing timber of the State originally aggregated in excess of 155,000,000,000 feet.

The Hon. John S. Estabrook of East Saginaw, a gentleman well known not only in the Saginaw valley but throughout the State, and one of the oldest living pioneers of the valley, gave publicity to the statement that "in 1854 the lumber industries of the State, which were then mainly confined to the Saginaw valley, included sixty-one saw mills, including many water mills, the annual production of which was placed at 108,000,000 feet." Nineteen years later the reported product of the Saginaw valley mills (1873) amounted to 619,867,000 feet of lumber, and 218,394,500 shingles, together with 2,560,000 cubic feet of oak timber, 12,700,000 oak staves, and 300,000,000 lath, while the production of the entire

State (the figures, however, including the Green Bay district with 283,000,000 feet, a large proportion of of which was the cut of the Menominee river) was 2,640,780,000 feet of lumber and 1,608,643,550 shingles (108,450,000 being from the Green Bay district), no reliable data of lath being available. A stated estimate of 1,500 saw mills, 200 shingle mills and 80 standard hoop mills, employing more than 20,000 operatives, and with a capital of $25,000,000 invested, at that date, we esteem much below the mark, as no doubt are the figures of production given for that period, which in view of the crude and imperfect methods of obtaining the figures which then prevailed, may safely be increased by fully 25 per cent. The value of the shingle, stave and hoop manufacture of that day was stated at $4,000,000. Gov. Jerome in his inaugural message, January, 1881, estimated the value of the lumber product of the State at $60,000,000 annually.

As will be noted from the above, a fair proportion of the log supply of the Saginaw mills came from the Rifle, Au Gres and other streams or points, where lake rafting was called into requisition. Rafts were made by securing full length trees for the sides, and shorter ones for the ends, which were securely fastened at the corners by heavy chains, forming cribs of from thirty to fifty feet in width by seventy to ninety feet in length, within which the logs were enclosed in regular order until the crib was full, when several of these cribs were chained together, forming a raft. These rafts varied in size from one million to four or five million feet, forming a "tow" for some of the larger lake tugs, and in this manner were towed across the bay to the Saginaw river. Of late years the "bag" boom has found favor, and is now almost universally adopted, for towing logs long distances. This form of raft dispenses with the end and cross sticks, the long side sticks being securely chained together at the ends, and the logs being permitted to assemble on a big bag formation as they are towed across the lake.

Edward Cowles, editor of The Saginaw Courier, and an acknowledged authority as a lumber statistician, in a resume of the work of 1895, said:

> "The inception of the bag boom in 1891 marked the first year of any considerable movement of logs from Canada to the Saginaw valley, 80,000,000 feet being brought there from Georgian Bay in that year. The rafts range from 2,000,000 to 6,000,000 feet, and while a raft occasionally goes ashore in a gale, loss is estimated at only 500 out of each 70,000 pieces rafted. In 1892 there was brought from Georgian Bay to Saginaw river 184,500,000 feet of pine logs. In 1893, 270,000,000 feet went to Michigan mills, and the estimated quantity handled in 1894 was but little less than 300,000,000 feet. The Saginaw river received the lion's share of the Canadian logs rafted in 1895, 142,000,000 feet having been entered at the custom house of Bay City, and 25,000,000 feet at Saginaw. The total shipments received at the several Michigan ports were 379,229,742 feet. Many millions of feet of logs designed for Michigan mills were hung up in Georgian Bay owing to low water, and could not be got out in time for rafting. The rafting season usually begins about June 1 and closes early in November. The estimated value of the logs handled in 1895 was $11 a thousand. Michigan lumbermen have purchased large quantities of pine timber limits in the Georgian Bay district for the purpose of supplying their mills. The value of Canadian timber has been trebled by this demand for it, and the work of cutting and rafting logs has furnished employment for Canadian labor and a market for vast quantities of supplies. It is estimated that the quantity of logs rafted during the season of 1896 will approximate 300,000,000 feet."

The following table gives with approximate correctness a statement of the lumber and shingle production of the Saginaw river mills from 1851 to 1897. That the tables are absolutely correct none would have the hardihood to assert. No systematic endeavor to compile the figures were undertaken previous to 1867, the figures previous to that date being gathered from the desultory statements found in the newspapers of preceding years, while those of succeeding years during which great care was taken to obtain the figures, are yet open to criticism, more upon the score of under, rather than over estimate. Only those who have undertaken such compilations can appreciate the difficulties attending the most conscientious endeavor to obtain even an approximation to correctness. The tables, however, give a fair idea of the advance from year to year toward the maximum production, and of the rapid decline in production since 1882. No figures are available to show the shingle production previous to 1867, while no estimate can be offered regarding the minor production of lath and pickets, the volume of which has reached high figures in the aggregate.

	Lumber Cut, feet.	Shingles, pieces.
1851	92,000,000	....
1852	90,000,000	....
1853	96,000,000	....
1854	100,000,000	....
1855	100,000,000	....
1856	110,000,000	....
1857	113,700,000	....
1858	106,500,000	....
1859	122,750,000	....
1860	125,000,000	....
1861	120,000,000	....
1862	128,000,000	....
1863	133,580,000	....
1864	215,000,000	....
1865	250,639,340	....
1866	349,767,344	....
1867	423,963,190	60,983,000
1868	451,395,225	104,104,500
1869	523,500,830	119,843,500
1870	576,726,606	178,570,000
1871	529,682,878	187,691,000
1872	602,118,980	159,001,750
1873	619,877,021	218,394,558
1874	573,632,771	208,489,500
1875	581,558,273	124,030,240
1876	583,950,771	204,316,725
1877	640,166,231	167,806,750

Yours truly
C C Barker

1878	574,162,757	153,999,750
1879	736,106,000	218,934,000
1880	873,047,731	241,075,160
1881	976,320,317	304,925,590
1882	1,011,274,605	295,046,500
1883	938,675,078	242,126,000
1884	978,497,853	261,266,750
1885	728,498,221	222,953,000
1886	798,826,224	227,463,000
1887	783,661,265	196,983,000
1888	880,669,440	297,224,000
1889	851,823,133	220,786,250
1890	815,054,465	221,839,000
1891	758,610,548	222,607,250
1892	708,465,027	182,315,200
1893	585,839,426	112,856,000
1894	481,244,039	85,602,250
1895	433,683,083	52,845,000
1896	316,797,879	38,180,000
1897	339,991,000	48,276,000
	22,720,591,251	5,580,635,213

Columbus C. Barker.—Columbus C. Barker has for many years held a prominent position among the lumber manufacturers of Michigan and Wisconsin, being numbered among the more extensive operators. He was the son of Josiah Barker, long a citizen of the State of New York, who in 1831 removed to Michigan, settling in Wayne county. John Barker, the grandfather of Columbus, was a native of New York, the ancestry, which was of English extraction, having reached this country at an early period. Upon his mother's side Mr. Barker traces to an illustrious ancestry in the eminent John Leland, from whose writings and researches, those leading writers upon English antiquities, Holinsshed, Drayton, Camden, Dugdale, Stowe, Sanbord and Batterlay, have drawn their inspiration, and whence they derived their most valuable information inthat line. This eminent writer was born at London about 1512, flourishing in the days of Henry VIII., and was accounted one of the most accomplished scholars and voluminous writers of the sixteenth century. Contemporary and subsequent history, pronounced him one of the most distinguished linguists of his day and age. He was a companion and literary associate of Budeau, Fabor, Paulus, Æmilius, Rullius and Francis Sylvius. This great mind was honored by Henry VIII., not only as king's chaplain, with the rectory of Pepling, but with the creation of a new office known as "King's Antiquary," created expressly for him, but expiring with his life, he being the first and the last to fill the office. In the execution of this trust John Leland was authorized to survey and examine all the antiquities of the realm, monasteries, monastic and college libraries, natural curiosities, and whatever might contribute to the history of the country and the glory of the nation. In the execution of this trust he spent six years, visited every part of the island, surveyed towns, cities and rivers; castles, cathedrals and monasteries; tumuli, coins and inscriptions, collected authors and transcribed manuscripts, and during the succeeding six years wrote in a vast number of MSS. and in elegant Latin, an account of his discoveries. His principal works were *"Commentarii de Scriptoribus," "The Itinerary," "De Rebus Britannicis Collectanca."* In 1691 appeared the eminently illustrious theologian, John Leland, D. D., born at Wigan in Lancashire, who settled over a congregation of Dissenters in New Row, Dublin, about the year 1716. He was cotemporary with Henry Leland, the ancestor of the American branch of the family, who was born in 1625, married Margaret Badcock, came to America in 1652, and died at Sherburne, Massachusetts, April 4, 1680, and was the progenitor of the American branch of the Leland family. In direct descent Mr. Barker traces to "Elder" John Leland, son of James Leland of Phelps, New York, and grandson of James Leland of Grafton, Massachusetts; born in 1754, who married Sarah Divine and died at Cheshire, Massachusetts, in 1841. Of their children, Betsey, the eldest daughter, married John Barker, a farmer and mechanic, of Plymouth, Michigan, whose son, Josiah B. Barker, the father of the subject of this sketch, married Betsey McKinstry. This happy couple followed the life of farmers at Nankin, Michigan, and were blessed with seven sons and three daughters, Columbus C. being the seventh son. Few indeed can trace to a longer lineage upon the American continent, or a longer line or more illustrious ancestry as they peer into the history of past generations. Elder John Leland, great-grandfather of Mr. Barker, was a Baptist minister of great renown, whose writings and sermons breathe the spirit of true Christian charity, and liberty of conscience, nonregulation of religion by the State, and the abolition of slavery. His efforts in behalf of the abrogation of all religious tests in citizenship, were among the most potent influences in securing for our country that toleration of thought which is at once our glory and our boast.

Columbus C. Barker, the subject of this sketch, had the misfortune to lose his father when but an infant of two and a half years of age. He was fortunate, however, in having a loving and judicious mother, who fully appreciated the duty devolving upon her of educating her children for lives of future usefulness, keeping the family together, and according to each member such advantages as were afforded by the schools of the neighborhood.

He remained upon his mother's farm in Wayne county, until the age of twenty-one years, enjoying the advantages of the common schools of his neighborhood, in connection with the aid he could render in the work of the farm, and in 1862 he entered college at Ypsilanti, where he continued for two years and soon after, visiting the Saginaw valley, he entered the employ of the well-known lumberman, A. P. Brewer, and learned to scale logs; i. e., to ascertain their contents in feet.

The education thus acquired gave Mr. Barker a most excellent standing among lumbermen, and laid the foundation for that success which has since crowned his endeavors. In 1869 Mr. Brewer became connected with John McGraw & Co., in the building of a large mill at South Bay City, the capacity of which was 150,000 feet per day of ten hours and Mr. Barker's energy and capability were again recognized by his employment to secure the requisite building material for its construction, and the construction of the extensive docks and booms required for piling ground and the safe care of the vast supply of logs required, the purchase of which was also confided to Mr. Barker. The mill was completed and ready to run by June, 1870, and continued in successful operation until August, 1872, when it was destroyed by fire, and again Mr. Barker's services were called in requisition as an "all round" man and to procure the material for rebuilding on a much larger scale, the new mill having capacity for cutting 250,000 feet per day. This was no doubt the largest and most finely appointed saw mill then standing in the United States, and upon its completion Mr. Barker was given charge of the purchase of its supply of logs, and as well a general charge and oversight over the mill. After eight years' experience with the McGraw firm Mr. Barker in company with Benjamin Birdsall, the head bookkeeper of the firm, entered into contract for the purchase of the mill and for the sawing of 300,000,000 feet of logs to be supplied to them, a portion of the agreed price for sawing to be applied upon the purchase of the plant. After four years of successful operation, fire again visited and destroyed the plant, and the McGraw company not caring to rebuild as required by the terms of the contract in case of fire, compromised by the payment of $25,000 each to Messrs. Barker & Birdsall and they dissolved partnership. Mr. Barker now purchased the mill at Wausau, Wisconsin, which had been known as the Michigan Lumber Company mill, which was rated at a capacity of 25,000,000 feet per year, and shortly after sold a one-quarter interest to H. C. Stewart and the firm of Barker & Stewart at that time formed, is still operating the plant. In 1888 Mr. Barker located a tract of pine land adjacent to the Wisconsin valley division of the Chicago, Milwaukee & St. Paul railroad, estimated to cut 50,000,000 feet of logs. He now interested several gentlemen in his enterprise and organized the Garth Lumber Co., J. H. Garth, president; C. C. Barker, vice-president; Jacob Mortenson, treasurer; A. F. Davis, secretary; and F. P. Stone, assistant secretary, and the company erected a band mill of 25,000,000 feet capacity at their newly established village of Garth, Wisconsin. This mill was operated for four years most successfully, and with the exhaustion of its timber resources, larger fields were sought and Mr. Barker located a large tract of pine land on the White Fish river emptying into Bay de Noque, where a large saw mill was erected, the machinery of the mill at Garth being largely utilized in its construction. The mill is a two band mill and is doing a large and profitable business, its timber supply being ample for at least four years to come. In 1893 Mr. Barker purchased on his personal account the saw mill plant formerly known under the name of "The Robinson Salt & Lumber Company," at Bay City, Michigan, and removing his family to that city, now resides there. This mill has capacity for sawing 15,000,000 feet annually; and has in connection with it, salt blocks with capacity for the production of 20,000 barrels of salt annually. Mr. Barker was married in 1871 to Miss Rose A. Trainer of St. Clair county, Michigan, one son and three daughters being the issue. He has been too actively engaged in his business pursuits to take an active part in politics, although recognized as a consistent member of the Republican party, and a man of public spirit, whose moral and financial aid is not withheld from any just and proper cause arising within the scope of his influence.

An intimate friend of Mr. Barker, and one who has been for many years in a position to judge correctly from a personal knowledge of his character as a citizen and business man, assures the writer that whatever he may say of Mr. Barker as a man of probity and business integrity, and as well of enterprise, can by no means be overdrawn. "He is the soul of honor, far-sighted and intelligent in his perceptions, honorable in his dealings, and justly held in the highest esteem by all who come in contact with him whether in social or business life."

Nathan B. Bradley.—To no class of its citizens has the State of Michigan looked for its development and progress to a greater extent than to its lumbermen, whose enterprise, foresight and public spirit have extended to all branches of its industries and advancement, social, industrial and political. The Hon. Nathan B. Bradley of Bay City was a native of Berkshire county, Massachusetts, where he was born May 28, 1831. In 1835 his parents removed to the western reserve of Ohio, then known as "New Connecticut," and settled at the town of Wellington. Here Nathan spent his boyhood at farm work and in school, until about the age of sixteen, when he apprenticed himself to a trade at which he served his full time, and in the fall of 1849 made his way to Oshkosh, Wisconsin, where he remained during the winter and following summer, and here gained his first experience in saw milling and the manufacture of pine lumber. Returning to Ohio he, in connection with a brother, built a small saw mill and engaged in the manufacture of the native hardwoods, but his short experience in the manufacture of pine had unfitted him for this slower and less satisfactory branch of the lumber business, and in 1852 he abandoned the hardwoods of Ohio and engaged in the manufacture of pine at Lexington on the Huron shore of Michigan, where he remained for about three years. The mill at this place operated two mulay saws with a daily output of about 10,000 feet of lumber. The timber resources of this section had even at this early day become limited, so far at least as the quality of timber which at that day was esteemed of value, was concerned, and Mr. Bradley decided to seek the more virgin fields of the Saginaw Valley region, and went to St. Charles in the southern part of Saginaw county, where he took charge of the manufacturing of lumber and shingles in the mill of Frost & Bradley, the junior member of which firm was his brother Charles Bradley. This mill was operated by steam and was situated at what was called the forks of Bad river, and contained two mulay saws rated at a capacity for sawing 3,000,000 feet per season. Nathan B. Bradley in later years became part owner of this mill in company with L. Penoyer under the firm name of L. Pennoyer & Co. In 1858 Mr. Bradley settled at Bay City taking charge of the

Frost & Bradley mill at that place which he subsequently enlarged to contain two circulars and one gang, with a yearly capacity for the manufacture of 20,000,000 feet per annum. About 1888 one circular was discarded and a band saw took its place. This mill was operated by Mr. Bradley up to the season of 1891, after which all the timber which had been provided for its use having been exhausted, it was dismantled after being operated under Mr. Bradley's management for thirty-two years, under the several designations of N. B. Bradley, N. B. Bradley & Co., and N. B. Bradley & Sons. For nearly a half century Mr. Bradley has been a by no means unimportant factor in the lumber manufacture, not only of Bay City and the Saginaw valley, but as well during the later years at Deer Park on Lake Superior, and in the extreme south at Lake Charles, Louisiana, being largely interested in the Bradley & Hurst mills at Deer Park, Michigan, with a yearly manufacture of from 15,000,000 to 18,000,000 feet, and in the Bradley-Ramsey Lumber Co. of Lake Charles, La. with a yearly capacity for the manufacture of 40,000,000 feet of the excellent yellow pine timber of the Calcasieu river. When about 1880 the manufacturers of the Saginaw valley began to appreciate the advantages of a car trade direct from the mills of manufacture to the yards of retailers at consuming points, Mr. Bradley conceived the idea of organizing a business of this kind, calling to his aid Mr. D. A. Ross of Detroit, and organizing the Ross, Bradley Co., started a lumber yard and erected an extensive and well equipped planing mill, and in the handling of large quantities of lumber annually by rail, (reaching as high as 41,000,000 feet in a year) demonstrated the feasibility and value of this new departure from the custom hitherto prevailing, of shipment wholly by vessel in cargo lots to yards of city wholesalers, so that for several years past the methods of moving lumber, have been revolutionized, and rail shipments are the prevailing rule not alone in the Saginaw valley, but from nearly all manufacturing points bordering upon the lakes, as well as from mills interiorly located. West Bay City presenting a more available site for the prosecution of this business in its greatly enlarged proportions, Ross Bradley & Co. some years since transferred their operations to the west side of the river.

As remarked in the outset, the lumbermen have played an important part in the development of the material and political interests of the northwest, and Mr. Bradley has been a conspicuous example of the confidence felt in him by his fellow citizens, who have from time to time demanded his services in positions of the highest responsibility. With the incorporation of Bay City in 1865 he was called to its first mayoralty and exerted a most healthful influence in moulding the destinies of the young city during that formative period. In 1866 his talents and ability were recognized in his election to the State senate and the appreciation of his services in this capacity were manifest in a renomination for a second term, which he declined to accept, but also led in 1872 to his nomination and election as the representative of his district in congress, where his practical business abilities were exhibited in his membership of several important committees, with such commendation to his constituents as to lead to his renomination and election for a second term. His valuable services found practical application not only in the improvement of the navigation of the Saginaw river, but of many other localities in the state and nation, in securing the removal of obstructions from its rivers and harbors, and the inauguration of works of vast benefit to the commerce of the lakes and ocean, and no less valuable were his services as a member of the committee on Public Lands in the forty-third, and on Public Claims in the forty-fourth congress. Although a Republican, Mr. Bradley in his public character took a broad and patriotic view which recognized no partisanship in matters relating to the public weal.

With the development of the salt interests of the Saginaw valley, Mr. Bradley was among the first to add salt manufacture to that of lumber, and upon the organization of the Saginaw & Bay Salt Co., became a director, a member of its executive committee, and was for several years treasurer of the company. He was for several years vice-president of the First National Bank of Bay City. He was one of the most prominent in the endeavor to unify the interests of the city by the establishment of street railroads connecting distant sections with a common center. In the promulgation of every proposition looking to the development of the business interests of Bay City and the Saginaw valley, he has always been found in the foremost ranks, and in the recent inception of the beet sugar industry he has taken an active part in securing for Bay City the first sugar beet factory to be established in the State, an enterprise which bids fair to greatly stimulate the agricultural interests of a large surrounding country, as well as in the promotion of the local interests of the city.

The inception and carrying to completion of the several railroad projects which have given to Bay City ample facilities for reaching any portion of the land has been in no small degree due to the wisdom and untiring efforts of Mr. Bradley, and the social interests have in no less degree found in him one who sought the higher elevation of the community. Mr. Bradley was a charter member of Bay City Lodge No. 129 F. A. A. M. and a charter member of Joppa Lodge F. A. A. M. and occupied the Oriental chair of Bay City Lodge. He was a charter member of Blanchard Chapter R. A. M. and its first presiding officer, and for several years a member of Bay City Commandery No. 26 Knights Templar. In church connection a Presbyterian, he has long been esteemed a most valuable member, not only of the congregation, but in the trusteeship, and as a ruling elder of the First Presbyterian church of Bay City. In 1853 Mr. Bradley was married to Miss Huldah L. Chase of Sparta, Ohio, two sons being the issue, both of whom, Elmer E. and Frederick W. being associated with their father in business. Mrs. Bradley died in 1881 and in 1882 Mr. Bradley was married to Mrs. Emeline E. widow of the late Augustine S. Gaylord of Saginaw City, to which city Mr. Bradley removed for a short period, but after a year and a half returned to Bay City where he still resides.

Daniel A. Ross.—Among the older operators in the lumber business of Michigan, and among the more prominent of the past twenty years in the Saginaw Valley, must be mentioned Daniel A. Ross. Mr. Ross is a native of Canada, having been born near London in 1834, his parents removing to Michigan in 1840. Enjoying the usual advantages of a common school education, he in 1854, entered the employ of the old and well-known firm of Smith Dwight & Co., then as since among the larger operators in lumber in Detroit, where, beginning as a tally boy, (one who keeps record of the figures as called by an inspector of lumber) he was advanced to the position of yard foreman at their mill at New Baltimore, at that time the only mill running on Lake St. Clair employed in cutting pine logs. In 1856 he went to Chicago, and entered the employ of John M. Williams, who at that time had a wholesale and retail yard in Chicago, and was interested with Martin Ryerson and Robert W. Morris in their saw mill at Muskegon, continuing with Mr. Williams until he retired from the lumber business in 1856-7. Mr. Ross was chosen arbitrator in a controversy which had arisen between Hilliard (Laurin P.) Howard (S. D. G.) & Morton (George C.) of Chicago, and Hibbard Bros. of Port Huron involving a question of inspection on a quantity of lumber sold by the latter, and which was decided upon the inspection of Mr. Ross, who after giving his decision to the satisfaction of all parties, concluded to remain at Port Huron. While at Chicago, Mr. Ross laid out one of the first yards in the new lumber district at 22d street for James Farr, Throop & Larned, and Nelson Ludington, and loaded the first car hauled out of the district by the C. B. & Q. railroad, which for many years enjoyed a practical monopoly of the rail transportation of the new district, the other roads being compelled to pay switching charges. Entering the employ of Kibbee, Fox & Co. of Detroit, he had charge as general superintendent of their operations in the woods for a year or two, when he began the lumber business for himself locating at Detroit, where he was the pioneer in establishing a car load shipment trade with the east, all lumber up to about this time being esteemed too bulky to be handled by rail, and finding transportation only by lake vessel and canal, there being few or no lumber yards in the eastern country which were not located directly upon navigable waters of canal, river or harbor. It did not require the capital at that time which has since been found essential to success, and with a bare $50, and that borrowed from a friend, Mr. Ross began, and built up one of the most extensive of the retail lumber business of the State, Detroit being for some years later a recognized producing and distributing point. In 1861 he associated with himself Mr. Jeremiah Oaks, and formed the firm of D. A. Ross & Co., of which about 1870 Mr. John R. Patten of Albany, N. Y., became an associate. (Mr. Patten died in 1873). The business of the firm prospered until the financial revulsion of 1873 brought not [illegible] a shrinkage in values and depreciation of all kinds of property, but a worry and anxiety, which in Mr. Ross's case resulted in the wreck of his health as well as of his business. With returning health his indomitable will and courage reasserted themselves and in 1871-2 he, previous to his misfortune, having erected a large saw mill at Coral, Michigan, on the line of the D. L. & N. railroad, and with a large tract of pine land from which to obtain supplies, renewed the manufacture of lumber, and thus recuperated his fallen fortunes. In 1881 he went to Bay City and in connection with N. B. Bradley & Sons instituted and incorporated the Ross, Bradley & Co., comprising two sons of Mr. Ross and two sons of Mr. Bradley (E. E. & F. E.) in connection with the elders. This company erected a large planing mill on 15th and Fraser streets in Bay City, and with frequent additions to the machinery, built up one of the largest car shipping trades of the country, in connection with the lumber manufacture of the saw mill of N. B. Bradley & Son, and practically inaugurated the extensive finer manipulation of lumber which is now recognized as essential to success in the prosecution of the trade of the valley. This company continued for fifteen years, having the misfortune to be burned out in 1890, but immediately rebuilding, with an iron-clad building stocked with the most modern planing mill machinery. In 1893 the mill and business was transferred to a site on the west side of the river, until on January 10th, 1896, when the Messrs. Ross sold their interest in the company to N. B. and F. E. Bradley, their fellow stockholders, and Mr. Ross has retired, except so far as the assistance he is enabled to afford his sons, each of whom at that time established a separate business at Bay City.

Mr. Ross is a member of the Methodist Episcopal church in active as well as regular standing, exerting an influence for good upon all who come within the scope of his example. He was married May 1st, 1857, to Miss Mary J. Daniels, a native of England, whose parents had in her youth settled in Chicago; two sons and two daughters were the issue of this union. Mrs. Ross died in 1878, and in 1880 Mr. Ross was united to Miss Lola M. Smith of Durand, Michigan, who still survives.

Frederick C. Ross, son of Daniel A. Ross, was born at Detroit in 1865, and commenced his business career as a tally boy for Ross, Bradley & Co. at Bay City, where he had previously attended the public and high schools and Detroit Commercial College, graduating from the latter in 1885. He remained in the employ of the company for ten years, during which time he became highly proficient in the details of the lumber trade in its various branches, from the logging camp to the sawing of the logs, and the finer manipulation of the lumber in the planing mill. In 1891 he began business for himself in the retail branch of the trade, renting and operating the planing mill of Moses Howe at West Bay City, and building up an extensive trade at wholesale in cargo lots, as well as a car trade to the interior. His expanding business demanding greater facilities, he in 1896 located a wholesale yard on the line of the Flint & Pere Marquette tracks in the south wards of Bay City, where he has ample facilities for carrying stock adequate to his growing trade. He had since 1890 been connected with the

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corporation of Ross, Bradley & Co. in an active business, a relation which terminated January 10th, 1896, when with his father and brother he sold out his interest in the incorporate company, which, however, maintained its corporate name until 1898, the limit of incorporated life. Mr. Ross was married in 1890 to Miss Anna Barnard of Bay City, one son having been born to them.

Hiram W. McCormick.—From an early day the name of McCormick has been intimately associated with the lumber trade and manufacture of the Saginaw valley. Elsewhere will be found reference to the Hon. James J. McCormick for many years a lumber manufacturer, whose mill was located on the river, near Twenty-third street, Bay City, and it was in this mill that he made what was probably the first experiment ever tried in this country, to saw logs with a band saw. It was unsuccessful and the saw ornamented Mr. McCormick's fence for many years before his death in 1873. His brother, William McCormick, was associated for many years with James J. in his operations, and both were held in the highest esteem as citizens and business men. Hiram W. the subject of this sketch was born at Watkins Glen, Jefferson county, in the State of New York, October 24th, 1850. He was the son of William R. McCormick, and nephew of James J. McCormick: His education was mostly in the common schools of Bay City, until at the age of fifteen years he began tallying lumber for William C. Yawkey & Co., then one of the leading commission and inspecting firms of the Saginaw valley. From tallying for others Hiram became a proficient judge of the differing grades or qualities of lumber, and in 1871 he commenced business for himself as an inspector and commission dealer, and built up a business, which, in 1884, made it judicious to take a partner. and he was joined by Mr. John R. Leadbetter in forming the firm of McCormick & Leadbetter, which continued until 1889, when Mr. Leadbetter withdrew, and the firm by the admission of Lewis H. McCormick, became McCormick Brothers, and the business was extended by opening an office at Menominee and Marinette in the Upper Peninsula, which was placed under the management of the junior partner, Lewis H. In 1893 Lewis withdrew and Hiram W. connected himself with a business at Duluth, in which Joseph E. Catlin became the resident partner, Mr. McCormick continuing his business on the Saginaw river. For the past few years the lumber business of the country has tended westward, and Duluth has taken the position in the trade which formerly belonged to the Saginaw valley, and to the cities on the west side of the State, while still, the importation of pine saw logs from the Georgian Bay region of Canada, together with an extensive manufacture of hemlock and hardwoods, combined with gleanings from the pine forests which for a half century supplied the mills of this section, renders the production of the Saginaw mills a matter of great importance, albeit, its original prestige has departed.

Mr. McCormick was married December 9th, 1873, to Miss Clara E. Patterson of Saginaw, one son and one daughter being the issue of the union. He is a member of Bay City Lodge No. 129 F. & A. M., of Blanchard Chapter No. 59, and Bay City Commandery No. 26 K. T. and is also a member of Moslem Temple N. M. S. Shrine at Detroit. He is, with his family a member of the Presbyterian church and a Republican in politics. Growing up from boyhood in the city of his residence, he is held in esteem by all who have watched his career from his youth to the maturer days of his manhood.

Alexander Folsom for many years a prominent lumberman of Bay City was a grandson of John Folsom of Hingham, England, who settled and gave the name to the village of Hingham, Massachusetts, in 1756. The father of Alexander was John Folsom, Jr., of Stratford, Connecticut, who married Elizabeth File Van Armon of Albany, N. Y., July 18, 1781, and removed to South Glens Falls in 1806 where Alexander Folsom was born June 7, 1807. The father of Alexander was a lumberman in the then lumber district of New York state, logging and manufacturing in connection with farming; he was a man of considerable wealth, and of unbounded business enterprise.

Alexander was the youngest of thirteen children, and was accorded a good education at private schools at Albany and Saratoga Springs, and approaching his majority, was well equipped for taking up the business in which his father had been successful. In 1837 he went to Albany and established a lumber business in connection with S. G. Hawley, continuing until 1850 when he formed a partnership with B. W. Arnold, and for nearly forty years the firm of Folsom & Arnold was among the most prominent and well-known in the lumber circles of New York and the east, Canada and Michigan, for the extent of its operations, and the probity of its dealings, which included the wholesaling at Albany of lumber stock purchased, and to an extent manufactured by themselves, in central and northern New York, Ottawa, Canada; and the western centers of production on the Canada shore of Lake Erie and with an increasing manufacture in the west, obtaining vast supplies from the Detroit river, and the Saginaw valley. In 1869 a large mill was erected at the north end of the city of Bay City, at which a manufacture of from twenty to thirty million feet of lumber was maintained for more than a quarter of a century.

Having witnessed the rapidity with which the forests of New York, Pennsylvania and other eastern sections had disappeared before the ravenous maw of circular saws, these gentlemen were not slow to appreciate the fact that the pine forests of Michigan were rapidly approaching the era of complete denudation and in 1881 dispatched a company of land lookers, under the supervision of James McKeon, a competent surveyor and timber estimator, to explore the comparatively little known timber resources of the Georgian Bay region of Canada, and upon his report, they in 1882 made large investments in timber limits on the Spanish river, and erected a large saw mill at the mouth of that river, with capacity for cutting 25,000,000 feet yearly.

Mr. Folsom took up his residence at Bay City in 1868 and resided there until his death, May 5th, 1889. He was never married. He was a most devout and consistent Christian, and during his early residence at Glens Falls, became a licentiate of the Presbyterian church, often filling the pulpit of the church at that place in the absence of the regular pastor, and soon after reaching Bay City was elected a ruling elder of the church in that city, an office which he continued to hold until his death, the adult Bible class of which became under his leadership, one of the most prominent features of church worship. Blessed with wealth, he regarded its possession as a stewardship to be used in advancing the interest of the cause of Christ, and his beneficences were neither stinted nor niggardly. For many years, he placed fully $1,000 a year in the hands of his pastor for judicious distribution in aid of weak and struggling churches in northern Michigan, while his aid to the mission cause both Home and Foreign, included not infrequent donations of from $3,000 to $5,000, his donations in support of his home church being upon a most liberal scale. In March, 1886, he assisted a struggling college at Alma, Michigan, with a donation of $50,000, a gift which, supplemented by a gift of like amount in grounds and money by Mr. A. W. Wright of Saginaw, and others, enabled the synod of Michigan to establish a most desirable and much needed institution for educational purposes in central and northern Michigan. In addition to many smaller gifts from time to time, the will of Mr. Folsom was found to provide a further sum of $30,000 in aid of this college, and as well a donation of $50,000 toward the erection of a more commodious place of worship for the church at Bay City, and liberal aid to the mission causes.

No worthy object, personal or public, ever appealed in vain for the aid in money or influence which it was in Mr. Folsom's power to bestow, nor did he always wait to be approached, but voluntarily and ungrudgingly sought out proper subjects for his beneficence, and gave not with the clamor of trumpet, but quietly and with abhorrence of publicity. Systematic in business, he was of a most kindly and cheerful disposition, and managing his army of employes with intelligence and kindness, none mourned his death more sincerely, many of them having continued in his employ for more than twenty years. His observance of the Sabbath was of the Puritanic order, no tool could be lifted, men, animals and machinery must rest upon the Lord's day, while his own most refreshing rest was found in the sanctuary, and in the Sabbath school with his Bible class. As age crept upon him he felt the need of a home, and purchased a handsome dwelling in which he and his nephew took up their residence, and at which he quietly passed away to the brighter home above.

Smalley & Woodworth of Bay City, although numbered with the later generation of lumbermen in the Saginaw valley, have for several years past cut an important figure in the lumber manufacture of the valley. Darwin C. Smalley with his brother William, and William T. Smalley, a cousin, were originally from Seneca Falls, N. Y., who came to the valley in 1870 and operated a machine shop, which ranked among the best in the valley, making a specialty of saw mill work and repair, a business which they still continue on a large scale. Being brought intimately in contact with the lumber interests, they in 1887, associated with them Frank T. Woodworth, who with Frank Slater had built a one circular saw mill at Salsburg, purchasing Slater's interest, and entered into the manufacture of lumber, forming the firm of Smalley & Woodworth. In 1891 this mill was destroyed by fire, but during the previous year, the company had purchased the site on which the mill of A. Rust & Co. had stood for many years, and erected a combined circular and band mill of 15,000,000 feet per year capacity. After successfully operating this mill for six years, it also was burned in September, 1896, and was at once rebuilt with a single band saw arranged for long timber, which has since been operated steadily night and day, to its capacity of 20,000,000 feet per year. This brief history is eloquent of the changes which a half century has wrought since the early mills of the Saginaw valley were accounted to be doing big work in the sawing of one quarter of the amount of lumber stated, even by the use of two sash or mulay saws, or even the circular, in its palmy days.

Frank T. Woodworth was born in Seneca county, N. Y., in 1862, his father about that time being killed in the civil war. When Frank was fifteen years of age his mother removed with her son to Bay City, where he attended the public school, and at seventeen took a clerkship in the Second National Bank, where he remained for a couple of years, and then with Frank Slater formed the firm of Slater & Woodworth, his subsequent history being found above.

He was married in 1885 to Miss Eva, daughter of Mr. James Smalley, father of William T. Smalley one of his associates in the firm.

William Peter.—The history of William Peter of Columbiaville, Lapeer county, Bay City on the Saginaw river, and Toledo, Ohio, contains the material for a romance equal to the basis upon which rests many a tale of fiction. Mr. Peter was born in Bavaria, Germany, in 1824, and at the age of twenty-two years came to America where he found work upon a farm in New York state at the munificent compensation of four dollars a month. He remained with his employers, Kniffen & Shaffer, until 1851, and then accompanied them to Michigan, making his residence at Columbiaville, Lapeer county, on the Flint river. Here he found employ in a saw mill, which although a new experience with him, was one which he was not slow to master, and within a month he had been given the position of head sawyer. The mill was a mulay, of about three thousand feet per day capacity, and was the first one built in that neighborhood. But a few months had elapsed when a freshet swept the dam away, and with the loss of its motive power the mill was shut down. This was the young man's opportunity. His frugal habits had led him to a careful accumulation of his scanty earnings, and he now saw the opportunity to make good use of his means, which while not large, made him a fair operative capital. The first logs put into the river were by John Pearson, and many of them were of enormous size, it being nothing unusual to see logs of six feet diameter in the river and booms, many of which, being so large, would ground and be held back as the waters receded. Such was the case when the young man found himself out of work. In the stream above the broken dam was a considerable quantity of stranded logs, in the south branch, which he purchased, and took a contract to repair the dam, and then hired the mill to cut his logs. It was the custom of the day to cut only such logs as would yield a large proportion, say from twenty to fifty per cent. uppers, and as the purchase made by him was of this high class of logs the product was largely of the better class of lumber. This he marketed by team to the Saginaw river thirty miles distant over natural roads which in those days were more mud and marsh than solid ground, rafting the coarser product by river to the same market. By this venture the young man cleared about nineteen hundred dollars, thus laying the foundation for the ample fortune which has rewarded his subsequent efforts. With the money thus acquired, Mr. Peter in 1882, purchased eighty acres of pine land on the Flint river, which he lumbered the following year, selling the logs to mills at Saginaw, and each succeeding winter following up the same policy of buying timber, logging and disposing of the product either in logs or lumber, until in 1860 he purchased the Doughty mill at Bay City, and entered the manufacture of his stock at that point. This mill had capacity for the manufacture of 35,000 to 40,000 feet per day, and consisted of a mulay and circular saw. In 1887 the mill was destroyed by fire, being immediately rebuilt with a band and two gangs of the most modern type with capacity for sawing 80,000 to 100,000 feet daily, which he continued to stock with logs cut from his own lands upon the various tributaries of the Saginaw river, the excellent timber of the Flint having been exhausted. Of late years with the decadence of local supply, the mill has been stocked from Canadian logs rafted from Georgian Bay. In 1862 in company with George Lewis, Mr. Peter purchased the "Fraser" mill near the foot of Twenty-fifth street, Bay City, which was continued in commission until it too was destroyed by fire in 1869. This mill subsequently rebuilt, was later known as the "McLean" mill, having been purchased by Seth McLean of Saginaw. In 1887 Mr. Peter became interested in the timber of the west side of the State, and built a mill in Newaygo county on the line of the Grand Rapids & Indiana railroad, which is still in commission, having two or more years' supply of logs available. Mr. Peter never lost sight of his Columbiaville mill and property, which he acquired in the earlier days, and upon which he later erected a thoroughly modern mill which he continued to operate for a number of years, and until nothing but hardwood timber was available. In the extent of his operations for the past thirty years, Mr. Peter must be numbered among the larger operators of Michigan, and it is a mooted question whether he may not be named as the largest. He has on hand at this writing no less than 85,000,000 feet of logs and lumber. With the decadence of the pine supply of the Michigan forests, Mr. Peter turned his attention to the Canadian resources, and purchased a limit of two hundred and twelve square miles in the Parry Sound district, and erected a two band mill at Parry Harbor, with a daily capacity of 100,000 feet per day. In his selection of lands Mr. Peter was his own land looker and estimator, the 6,400 acres of his Newaygo purchase as well as a purchase of 4,000 acres on the Tobacco branch of the Tittabawassee, and his extensive purchases on the Flint and other streams, having been made upon his own estimates and examination. His operations have extended to all the streams of the Saginaw region, and his judgment of timber has been from the standpoint of a thorough expert. His operations and researches have not been confined to Michigan, there being few points in Wisconsin or the northwest with which he is not perfectly familiar. In connection with his wholesale and retail yard at Toledo which covers between five and six acres of ground, he has a large and thoroughly modern planing mill plant for the finer manipulation of stock in such manner as the demands of the trade require. At this yard about 25,000,000 feet of lumber are handled yearly. At this point he is also interested in other manufacturing branches, including the Union sewing machine, a wooden ware factory, and his son is interested in the manufacture of bicycles. Mr. Peter has long been connected with the Bay City Bank of Bay City, of which he was one of the incorporators, and of which he has for many years been president. He was married to Miss Roxanna Chute, one son and one daughter being the fruit of the union. The son, Elvin has charge of the yard and business at Toledo, and resides in that city; the daughter Hattie is the wife of —— Young of Bay City, who has charge of the mills and salt block of that place, the manufacture of salt having been for many years an important adjunct to the lumber manufacture at that point. In addition to his diversified interests in connection with lumber, Mr. Peter carries on an extensive farm of fifteen hundred acres at Columbiaville where he resides in a handsomely appointed residence, and has also another farm of five hundred acres.

As before remarked, Mr. Peter's experience in life has been one of remarkable interest, and one which could hardly find its parallel in any other country. A poor German boy thrown upon his own resources in a strange land, his honesty, integrity of character and indomitable energy combined with a more than ordinary degree of intelligence, have sufficed not only to place him in the ranks of the millionaires of the land, but have given him a prominent and well merited place in the confidence and esteem of all who for nearly half a century have been his business associates.

Edgar B. Foss of Bay City was one of the younger of the lumbermen of the Saginaw valley, in the day when it was first perceived by the manufacturers, that with the advent of a complete railroad system which would enable the placing of mill stocks directly and speedily in the yard of the retailers, the exclusive system of vessel transportation to wholesale points of distribution, must give way to speedier methods.

The employment of travelling men from the mills of the Saginaw valley was unknown until about 1872, when with the extension north of the line later known as the Mackinaw division of the Michigan Central railroad, the mills of that line began to court the trade of retail dealers in Ohio and Indiana, who had hitherto obtained their supplies through the wholesale dealers of Toledo, Sandusky and Cleveland, and even from Chicago. In this new departure D. A. Ballou & Co. of Kawkawlin, Van Etten, Kaiser & Co. of Pinconning, and George Cross of Standish, were the pioneers, who sent out their travelling solicitors to drum up the new trade, and among the earliest of the men so employed by them was Edgar B. Foss, a young man from Willamantic, Conn., who was born in 1851, and who in 1868 entered the employ of D. A. Ballou & Co. at Kawkawlin, in the capacity of clerk. After a few years' service with this company he was in 1872 engaged by Van Etten & Kaiser of Pinconning to represent them on the road, continuing with this firm and its successors, until 1878, during which time he developed an extensive car trade and became intimately acquainted with the wants of the dealers in Ohio, Indiana, and other interior sections of the country. In 1878 he started in business for himself at Bay City and was shortly after joined by his brother Samuel S. Foss, who continued with him until unfortunately killed in a runaway accident in 1883, after which Mr. Foss was joined by John M. Lester, who continued in the prospering firm of Foss & Lester until 1887 when Mr. Lester retiring. Mr. Foss has since conducted a rapidly expanding business which under the name of E. B. Foss & Co. has purchased large quantities of logs and lumber, having the former manufactured at convenient mills, and obtaining much of the latter from desirable stocks in the market, the yearly sales reaching 25,000,000 feet per year. With the expansion of trade, Mr. Foss began the cultivation of an eastern trade which now largely absorbs his attention. By the modern methods of shipment retail dealers throughout the country are enabled to secure just such grades and quantities as the exigencies of their business may demand, obviating the necessity of purchasing large quantities of undesirable stock, and giving such assortments as may be required, with the ability to replenish any given grade as their market may require, a condition which has revolutionized the lumber trade of all manufacturing points which formerly depended upon shipment in cargo lots, and Mr. Foss has been a potent factor in the development of this changed condition.

Mr. Foss married Miss Elizabeth Fitzgerald of Bay City and to them have been born two sons and one daughter. He is a member of the Masonic fraternity including Blue Lodge, Chapter and Commandery, and has taken the 32d degree in addition to being a member of the Shrine. He is a director in the Second National Bank of Bay City, and in politics a Republican.

CHAPTER XII.—SAGINAW BAY AND HURON SHORE.

TAWAS, AU SABLE, ALPENA, ETC.—SKETCHES OF LUMBERMEN.

The development of the lumber industry of the shore of the Saginaw Bay was but slight up to about 1864-5. As elsewhere noted, a water mill was built from about 1835 or 1840 on Pine river about a mile from its mouth, by Job Olmstead and Douglas Thompson, but of its history no particulars can be learned, there being in 1862 only a pile of well decayed debris to mark the spot while the oldest resident could tell nothing of its history. About 1855 a steam mill later owned and operated by John Spear, was built by John Phillips near the mouth of the river. This mill was stocked in 1863-4 by the writer and soon after that date went out of commission. This was a mulay mill with a very small engine.

Sometime previous to this, probably about 1860-1, Whittemore Bros. had a circular mill at what is now Tawas City, and about 1863 Loud, Gay & Co. commenced extended operations at the mouth of the Au Sable river, and the, for many years, thriving cities of Osceola and Au Sable were noted for the extent of their lumber production. The statistics of 1873 name two mills for Loud, Gay & Co., with capacity for cutting 200,000 feet per day, and with timber resources of 60,000 acres upon the banks of the Au Sable river; also the mills of F. & J. Moore; Smith, Kelley & Co., and Colwell, Smith & Langstaff. At Tawas City are named the mills of J. C. Cameron, 80,000 feet per day capacity; C. H. Whittemore, 60,000 feet; and S. & C. Hale, 10,000,900 yearly capacity. The thriving city of East Tawas established about 1864 with the erection of the mill of Luther Westover, later known as that of the East Tawas Mill Co., is noted in 1873 as containing the mills of W. G. Grant & Son, capacity 11,000,000 feet yearly; Lawler Mill Co., 9,000,000 feet; Adams, Swaney & Co., 5,000,000; D. J. Evans & Co., 5,000,000 feet; Adams, Jolly & Co., 5,500,000 feet. At Ossineke the mill of Sanborn Bros. was built in 1873, with a cutting capacity of 4,000,000 feet yearly. At Au Sable and Oscoda were the mills of Loud, Priest & Gay, 11,700,000 feet; Backus & Bro., 7,000,000 feet; J. & C. Parks, 2,000,000; Burrows, Young & Co., 3,000,000, and the Au Sable Lumber & Shingle Co., (cut not given). At Aleona was the mill of Johnson, Haynes & Co., 3,000,000. At Harrisville, Weston, Colwell & Co., 4,500,000; at Sand Point, W. T. & S. Whitney, 2,500,000 feet. At Alpena were ten mills of which extended reference is made elsewhere.

The shingle manufacture of the shore mills had at this time become quite extensive, aggregating 48,500,000 at Alpena, 500,000 at Harrisville, 6,100,000 at Au Sable, and 14,000,000 at Tawas, a reported total of 69,000,000 shingles, equalling a log stock of about 14,000,000 feet.

Yours Truly,
Chas E Wyman

Following the shore to Cheboygan we find the mills of McArthur, Smith & Co., 6,000,000 feet; Thompson, Smith, 20,000,000; William Smith, 4,000,000; Vorce, Baker & Co., 2,000,000; Nelson, Strohn & Co., 8,000,000; Barclay & Mattoon, 6,000,000, and Smith Bros.' shingle mill of 1,000,000, the cut of these mills for 1873 including 4,000,000 shingles and 2,000,000 lath.

Turning back to the east shore of Saginaw Bay and Lake Huron we find the mill of Wood & Co. at Port Crescent (built in 1871) with capacity of 11,000,000 feet, and at Port Austin, that of Ayres & Co. (built in 1850), its capacity increased in 1873 to 9,000,000 feet.

In this connection it may be added that the statistics of 1876 give the manufacture of the mills of the Huron shore eastward from the Saginaw river and including all the mills from Saginaw to Detroit, at but 48,700,000 feet, and with a constantly reducing quantity the records of 1893 give to this entire section a cut of but 4,000,000 feet, and this largely of hardwood, hemlock and cull pine.

The statistics of the Huron shore, including Alpena, Harrisville, Alcona, Ossineke, Au Sable (with Oscoda) and Tawas, show that the production had in 1866 reached a volume of 64,800,000 feet of lumber and 8,600,000 shingles, gradually increasing until in 1879 there was a reported cut in this district, embracing only the towns named above, of 312,854,000 feet of lumber and 75,800,000 shingles, while the fifteen years, from 1866 to 1880 inclusive, reported a grand total of 2,335,023,280 feet of lumber and 959,448,000 shingles. With a rapidly increasing production this district in 1889 reported a lumber cut of 621,689,053 feet of lumber and a shingle cut of 73,414,501, from which point the decline was marked, the reported cut of 1896 being 196,787,419 feet of lumber, and 90,017,950 shingles.

The total production of this district, as reported from 1866 to and including 1896, aggregated 8,957,640,367 feet of lumber, and 2,039,587,071 shingles, equivalent to 407,917,415 feet of logs, or a grand total reported production of 9,365,557,782 feet of timber during the thirty years, adding lath of which we have no data, unreported lumber and logs cut in this territory and towed to Port Huron, Detroit and other points, and it is a conservative estimate that the territory between Tawas on the south and Alpena on the north has produced not less than 12,000,000,000 feet of timber, beside the vast amounts of cedar and other forest products of which we find no reliable data.

The decadence of the forest supply of this section is best demonstrated from a resume of the reported production in 1896 in which year the cut of the mills was reported as follows, viz:

Alpena—Alpena Lumber & Veneer Co. (new, no report); E. O. Avery, 500,000; W. L. & H. D. Churchill, 19,749,508; Comstock Bros., ———; S. A. Davison, 2,000,000 feet of lumber, 8,000,000 shingles; Eales Bros. & Co., 10,000,000 shingles; George W. Fletcher & Sons, 13,000,000; F. W. Gilchrist, 20,000,000 feet of lumber, 3,500,000 shingles; P. H. Luther, 7,000,000; George Masters, 12,000,000 shingles; Mesior Lumber Co., 13,000,000; Albert Pack, 30,000,000; R. J. Thompson, 6,000,000 shingles; J. D. Trumbull, 200,000 feet of lumber.

Au Sable—H. M. Loud & Sons Co., 13,500,000 feet of lumber, 19,250,000 shingles; Pack, Woods & Co. (Oscoda) 18,000,000 feet of lumber.

Black River—Ayer, Smith & Co., 16,863,654; C. C. Smith (shingles) 10,000,000.

Caseville—S. F. Owen, Agt., 400,000 feet of lumber.

East Tawas—Holland, Emery & Co., lumber, 18,500,000; shingles, 2,384,000; Ottawa Hardwood Co., lumber, 2,000,000.

Tawas City—C. H. Prescott & Sons, lumber, 5,000,000.

Grace—C. A. Beagle, lumber, 7,000,000.

Greenbush—J. Van Buskirk, lumber, 1,000,000.

Harrisville—Colwell, McGregor & Co., lumber, 347,174; shingles, 334,500; B. P. Cowdery, lumber, 250,000.

Long Lake—S. Anker, lumber, 3,000,000; shingles, 8,500,000; G. Stubbs & Sons, shingles, 50,000.

McIvors—John Arn, (no report).

Rogers City—Bertram Lumber Co., ——; Platz Bros., ——.

Port Huron—Henry Howard estate, lumber, 5,000,000.

Taft—Wagar & Pfeiffer, shingles, 10,000,000.

Making a total production for 1896 of 196,787,419 feet of lumber, and 90,017,950 shingles, the report for 1895 having shown 229,545,308 feet of lumber and 114,377,750 shingles.

Several important logging streams find outlet in the Saginaw bay, which, while not favorably located for the building of mills, on account of the shallow water at their mouths, have yet proved of the greatest utility for reaching the vast bodies of pine growing upon their head waters, and for which the streams were the natural outlets. Of these the Rifle and Au Gres are the most important, the former having contributed no less than 1,751,933,873 feet, and the latter 1,171,189,781 feet of logs between 1866 and 1895, to the supply principally of the Saginaw river mills, whither they were towed in rafts. The Kawkawlin, Saginaw and Pine rivers also in a minor degree were of importance, the former, having a record of 329,985,162 feet, while the combined output of the Saganin and Pine reached a volume of 195,041,633 feet up to and including the year 1895. These streams have become practically exhausted of their timber supply and will cut little figure in the lumber product of the future.

Cheboygan.—Properly speaking Cheboygan lies within the district which is included in the term "Huron Shore," but has been treated in the annual collection of statistics as a separate entirety. Its production in 1873 was reported at 41,100,000 feet of lumber and 7,900,000 shingles. Its high water mark of production was in 1890, when the cut was reported at 127,540,000 feet of lumber and 3,000,000 shingles, and for the period between 1873 and 1896 inclusive, a total cut of 2,098,262,623 feet of lumber is recorded, which includes 292,553,000 shingles reduced to lumber, together with an added ten per cent estimate for "unreported," and previous to 1873. Minor mills along the shore which are aggregated in the tables of "miscellaneous," would safely swell this volume to 2,500,000,000 feet, and we may set down the Huron shore north of Tawas as having contributed not far from 16,500,000,000 feet to the grand total of Michigan production to the present time, which includes an important element of the shore contribution to the grand aggregate of lumber production in the supply of logs and long timber banked upon the shores and bays, and towed to the mills at Port Huron, Detroit, Toledo, Sandusky, Cleveland and Buffalo, a business extensively carried on from as early as 1870 and continuing to as late as 1896, the aggregate volume of which may safely be estimated not less than 1,500,000,000 feet.

The cut reported in 1896 included mills as follows, viz.: Cheboygan Lumber Co., 25,000,000; W. & A. McArthur (Limited) 10,000,000; Pelton & Reid, 19,000,000 feet of lumber, 5,000,000 shingles; D. Quay & Sons, 13,468,000 shingles; Swift Bros., 22,000,000, with 2,000,000 shingles; S. H. Embury, 4,0000,000; Thompson Smith's Sons, 22,362,000, with 3,834,000 shingles; E. P. Hayes (Duncan City), 5,000,000 shingles; a total for the year of 102,362,000 feet of lumber and 34,302,000 shingles.

Alpena.—The most important locality on the Huron shore is the city of Alpena and while but little was known for many years of the vast country north of the Saginaw river to the straits of Mackinaw, yet the present site of the city of Alpena was visited in 1844 by Jonathan Burch and —— Eldred, who recognized the value of the extensive forests of pine bordering on Thunder Bay river, and of that location as a manufacturing and shipping point in what they believed justly to be a future of great prospect for the shipping of the lakes. Finding excellent facilities for building a dam on the rapids, they made arrangements to build a saw mill and began to get out the timber for it, but the Indians objecting most strenuously and to the extent of force in driving them away, they took their party to Sulphur island and held a consultation as to whether to put up a two-sash mill with flutter wheel on Devil river, 12 miles south, or return to their first location, where an influential Indian chief now promised them protection. Alpena was by far the best location, all things considered, but Devil river presented the advantage of building a dam at far less expense, and the amount of money requisite for the inception of such an enterprise at the time was a consideration not to be overlooked. The competing advantages were so nearly equally balanced that it was difficult to come to a conclusion, when it was finally concluded to leave the decision to chance, and a stick was chosen as the arbitrator, which being lightly stuck in the ground fell toward Devil river, and the first mill in what is now Alcona county was built there. We find no record of any amount of work accomplished by this mill, and indeed the time had not come for a development of the lumber business or other industries of this region, such as in later years made it famous, but from the best information its total cut did not exceed 500,000 feet.

Alpena county was not laid out until 1840, at which time it was attached to Mackinaw county for legislative and judicial purposes, so remaining until 1853 when it was attached to Cheboygan county, and in 1857 was made a county by itself, with a population consisting of a few fishermen and hunters, it being noted for its excellent advantages in both of these fields; the name of the early settlement was "Fremont," but afterward it was changed to Alpena signifying "good partridge country."

History records but little of interest in the development of the timber interests of Alpena until the winter of 1855 when John and Alvin Cole arrived with a number of mechanics for the purpose of building two saw mills, one at each end of a dam which was built for that purpose during that season. One of these mills was for Lockwood & Minor and the other for George N. Fletcher. The timber was got out for the two mills, but through disagreement a delay occurred, and the frames were stored away, finally to be burned in one of the destructive fires which marked the early history of the town.

Alvin Cole was the first to do any practical logging in Alpena, he having come in 1858 with his brother to build the mills, but on the failure of the venture he took a contract for logging from George N. Fletcher, whose logs were sawed at the Smith & Chamberlin mill. These logs were purchased by Trowbridge Bros., and the lumber rafted to Chicago. A log raft of 4,000,000 feet was also formed about this time, but being loaded with short logs on top of long ones, the raft broke its bonds and the logs were scattered over the shore and so many as were saved were manufactured by a portable steam mill located on the shore.

The second actual lumbering, as the term is understood by those engaged in the trade, was done in the winter of 1858-9 by Archibald & Murray, who contracted to bank one million feet more or less for Lockwood & Minor from town thirty-one north, range six east, the contract price being two dollars per thousand. The haul was scarcely more than skidding as the timber lay along the river bank; the first cargo of lumber was shipped on the schooner Meridian during the latter part of the summer of 1859. During this same year (1859) Smith & Chamberlin commenced the erection of the first steam saw mill, and began sawing late in August. From this date Alpena has been counted among the lumber centers of the State. The mill of Smith & Chamberlin continued to run until 1864 when it was burned. Another mill long known as the "Folkerts & Butterfield" mill was erected in 1864.

George F. Lewis, editor of The Saginawian, and for many years the recognized statistician of the Saginaw valley, in a history of Alpena published in his journal, in 1870, said:

> "In July, 1860, Lockwood & Minor built the steam mill known as the 'Island Mill,' completing and starting it with one circular saw, two days short of six weeks from the time the first blow was struck. The same firm commenced building a second steam mill in 1862, and had the frame up when the fire of July 4, originating in the woods back of the town, swept into the village and destroyed this frame, together with a majority of the buildings which constituted the young city.

The mill was soon rebuilt, however, and started in October with one circular saw and a siding mill. Lockwood & Minor had also the misfortune to have their first mill burned in August of this year, but nothing daunted, it was rebuilt and set running about the first of November. This mill was later known as the Home mill, and subsequently as the mill of Bewick, Comstock & Co. During this year (1864) the Lester mill (afterward known as the Mason, Luce & Co. mill) was built by G. S. Lester, and the Oldfield mill (water) by John Oldfield; this mill was later known as the Richardson, Avery & Co. mill."

A private letter to the historian from a respected citizen of Alpena says:

"John Oldfield, who formerly had a saw mill at Dunnville on the Grand river of Canada, together with J. R. Lockwood, John S. Minor, W. A. Chisholm and George N. Fletcher, purchased a village site, where Alpena is now located, and Mr. Oldfield, with a Mr. Nixon, built a water mill on the dam three-quarters of a mile from the mouth of Thunder Bay river, at or near the place where Jonathan Burch attempted to build a mill twenty-six years before, but was driven away by the Indians. Burch then went to Devil river twelve miles south of Alpena where he married Miss Fowler, a half-breed Indian woman, and built a saw mill; he remained there a few years and removed to Burchville, fourteen miles north of Port Huron on the Huron shore and built a mill on a small stream which he named Burch creek, and afterward built a steam saw mill near the same place. He had a large family and his daughters made noble, good women. * * * "

In 1865 the Harrington mill (afterward known as the Hilliard, Churchill & Co. mill) was built, and was the largest and best-equipped mill which had been erected up to that time. B. H. Campbell & Co. (which afterward became Campbell & Potter, and in 1871 to 1887 Potter Bros.) built a large steam mill above the dam (1864); H. Broadwell built a water mill five miles up the river, and J. Trowbridge & Bros. built on the river seven miles beyond Broadwell's; these parties also built a steam mill on the shores of the bay during the same year. L. M. Mason in this year completed the water mill commenced in 1858 by Lockwood & Minor, putting in a mulay, two shingle machines and a lath mill. During 1866 three shingle mills were erected, one by Thompson & Co., having an estimated capacity of 10,000,000 feet per season. In 1867-8 A. F. Fletcher & Co. erected a combined saw and shingle mill and the same year Bewick, Comstock & Co. built a shingle mill of 100,000 per day capacity; in 1869 Frank Gilchrist built one, and in this year Alcona was set off from Alpena and became a separate county. In 1871 the Alpena Lumber Co. erected its large mill. The capital now invested in the lumber business of Alpena aggregated nearly half a million dollars, according to official reports, which for 1874 set down the cut of lumber at 78,500,000 feet, valued at $1,157,000; capital invested in shingle manufacture, $40,000; value of product, $160,000. The shipments from Alpena for the year 1874 were 85,000,000 feet of lumber, 65,000,000 shingles, 33,116,000 lath, 206,643 pickets, 100,000 cedar posts, 9,905 house blocks (large cedar posts), and 2,677 pump logs.

The forests upon which the mills of Alpena depended for supplies were located on the river from twenty to sixty miles from the bay, the logs being floated down the rivers, and held in distributing booms where they were sorted according to their various marks, to the mills of their owners, each of whom as in other localities throughout the lumbering districts, adopted a hammer of some personal design or letter, which was repeatedly stamped upon the end of each log while still in the woods, rendering it an easy matter to select each ownership and separate it from all others with which it had mingled in the river on its way to the sorting or distributing boom. The principal timber supply of Alpena county was pine, both white and norway (red pine) with large quantities of white cedar, hemlock, maple, (both soft and hard) birch, tamarack, basswood, white and black ash, some poplar, considerable birch, elm, ironwood, a limited quantity of white oak, etc. In 1875 there were fourteen saw and shingle mills employing about 600 men, using eight gangs, thirteen rotaries, four mulays, fifteen shingle machines and fifteen lath machines. Alpena and adjoining counties in later years proved to be among the richest agricultural districts of the northwest.

The culminating point of lumber and shingle manufacture in Alpena was reached in 1888 when the cut reached 215,000,000 feet of lumber and 25,000,000 shingles.

The total production of Alpena from 1859 to 1896 may safely be set down at a gross quantity of 3,500,000,000 feet of lumber and 800,000,000 shingles, the yearly reports since 1874 aggregating 3,092,000,000 feet of lumber and 801,000,000 shingles. For several years last past many of the Alpena mills have rafted their log supply from the Georgian bay of Canada to the extent of fully 100,000,000 feet per annum.

The statistics of 1896 give the production at Alpena as follows, viz: Comstock Bros., 15,000,000 feet of lumber, 11,000,000 shingles; Minor Lumber Co., 14,500,000 feet of lumber; Albert Pack, 23,800,000 feet; George N. Fletcher & Sons, 19,000,000 feet; E. O. Avery, 4,000,000 feet; W. L. & H. D. Churchill, 19,800,000 feet; F. W. Gilchrist, 23,000,000 feet, with 3,700,000 shingles; R. J. Thompson & Co., 5,000,000 shingles; J. D. Turnbull, 300,000 feet, with 100,000 shingles; S. A. Davison, 10,000,000 shingles; George Masters, 10,000,000 shingles; Eales Bros., 9,000,000 shingles; a total of 119,400,000 feet of lumber and 51,800,000 shingles, the total cut of the Huron shore for that year, including from Rogers City on the north to Port Huron on the east, being reported at 229,545,308 feet of lumber and 114,377,750 shingles (not including Cheboygan).

Henry Martin Loud.—The history of the Huron shore would be incomplete without reference to Henry Martin Loud, who in 1863 was the head of the well known firm of Loud, Priest & Shepard, who in that year began the erection of a large saw mill at Au Sable, eighty miles north of Bay City, which firm after undergoing several changes in nomenclature until its incorporation in 1884 as the H. M. Loud & Sons Lumber Co., was and has continued to the present time under the supervising management of Mr. Loud. H. M. Loud was born at Westhampton, Massachusetts, December 11, 1824, the son of Austin and Mehetabel (Bartlett) Loud, his father being descended from one of the largest and most famous of the Scottish clans, and his mother from Cornelius Bartlett, who for seven years was a soldier in the American army of the Revolution. Francis Loud, the pioneer of the Loud family on this continent, reached America soon after the Pilgrim fathers landed from the Mayflower, and shared with his descendants in the trials and hardships incident to the conquests and development of the new country. Settling in the pine woods of the Kennebec river of Maine at Sagadahoc, he was in 1776 driven from his home by the Indians and afterward obtained permission to settle with others on Arrowsic island. Austin of the fifth generation in this country, was an ingenious builder and millwright, who left his native town of Westhampton, Massachusetts, in 1832 and in 1836 settled at Huntsburg, Ohio. Henry M. received a limited education in a country school, to which for three months in the year, he was compelled to walk one and one-half miles, until at twenty years of age he assisted his father in clearing up the farm, and to operate a small saw mill. Fond of reading he eagerly devoured every good book he could find, and by this means storing up knowledge until at the early age of eighteen he obtained an exhorter's license and afterward a license to preach in the Methodist Episcopal church, and for several years, without compensation, preached the gospel in the churches of the Methodist Episcopal denomination over a large circuit. At the age of twenty-six he joined the Erie conference and was at first stationed at Hartford, and later at Braceville, Ohio, and with a view to a higher education he in 1853 began a three-year theological course at Concord, New Hampshire, preaching regularly during the time, principally in the city of Concord, and for six months filling the pulpit at St. Paul's church in Fall River, Massachusetts. In 1856 he joined the New England conference, and for nine years was pastor of churches at Watertown, Massachusetts, Lowell, Fitchburg, Leominster and Medford, during a portion of this time serving as a trustee of the New England educational society of Boston, formed to aid young men in preparing for the ministry.

Mr. Loud had always been credited with remarkable executive abilities, well fitting him for a business career, and with impaired health, and a necessity to look more closely to the interests of a growing family, he in 1865 took a supernumerary relation, and in 1867 went from Boston to Au Sable, Michigan, and engaged in the lumber business. Au Sable was at that time but a small hamlet of fishermen on the shores of Lake Huron, but the erection of the mill of Loud, Priest & Gay upon a scale which at that time was considered extravagantly large, soon gave impetus to the growth, not only of this individual locality, but of the entire shore from Bay City to Alpena, which from this time developed with great rapidity, and to the present time may be credited with a production of fully 12,000,000,000 feet of lumber, besides a probable 2,000,000,000 feet of "shore lumbering," or timber rafted in the log to points from Port Huron to Cleveland. The mills erected by Loud, Gay & Co., as the company was at first known, consisted of two mills equipped with five circular saws and three gangs, one of which was a "slabbing" gang, and the capacity was rated at 25,000,000 feet per year, employing ninety men in the mills, and over three hundred in the logging operations in camp and on the drive. The firm of which Mr. Loud was from the first the managing partner, underwent several changes during the succeeding years until in 1884, when articles of incorporation were secured under the name of The H. M. Loud & Sons Lumber Co., with a capital stock of $800,000, of which company Mr. Loud was elected president, holding the office continuously to the present time, George A. Loud being vice-president, H. N. Loud secretary, Edward F. Loud treasurer, and W. F. Loud cashier, all of these gentlemen being sons of Mr. H. M. Loud. With passing years the mills, which, when erected in 1870 were quite up to, if not ahead of the times, were improved by the addition from time to time of new and improved labor-saving devices as they were presented to the saw mill world, enabling an average cut for nearly thirty years of fully 30,000,000 feet per annum, while the actual capacity is best shown in a cut during 1892 of no less than 89,578,922 feet of lumber, with a vast aggregate of lath and shingles; while since the beginning, there has been no less than $5,000,000 paid out in wages. The immense forests of the Au Sable river were in their virgin condition when Mr. Loud and his associates first commenced operations; there were many obstructions in the river (see sketch of A. A. Dwight) which were by many thought to be insurmountable, being composed of timber which for ages had been gathering upon the shoals, and which entailed a heavy expense in their removal, but were finally overcome by a free use of dynamite, thus releasing a body of excellent timber amounting in the aggregate to probably 6,000,000,000 feet. To further facilitate their lumbering operations, the company built the Au Sable and Northwestern railroad, one hundred and ten miles in length, opening up a vast body of timber too remote from the stream for profitable lumbering, and of this road Mr. Loud was and is president, his sons filling the other offices. Mr. Loud has for several years been president of the Vermillion & Grand Marais Iron Co., in the Upper Peninsula, its offices being located at Duluth. He is also owner of five hundred acres of land in Pomona, Southern California, set to citrus and deciduous fruits, where for several years he has been accustomed with his family to avoid the rigorous winters of this more northerly clime. Notwithstanding the heavy demands upon his time and energies, Mr. Loud has served as mayor of the city of Au Sable, and at one time accepted the Republican nomination of the district for congress, but was defeated by the Hon. S. O. Fisher of Bay City.

In spite of business prosperity and engrossing cares, Mr. Loud has never lost his interest in the cause which he espoused in his earlier days, and in which he spent twelve years of his life, and the Methodist church of Michigan has cause to remember his labors and influence with gratitude. He was president of the lay conference in 1884, and in the same year was elected lay delegate to the general conference held in Philadelphia. He has been for a number of years president of the Bay View Assembly, and since 1889 a trustee of Albion college, Michigan, and is a member of the advisory council of the Wesleyan Guild at Ann Arbor, maintained in connection with the State university, and has also endowed a scholarship of $30,000 at Albion college, and otherwise shown himself liberal in his benefactions to the causes of the church.

Mr. Loud was married in 1844 to Miss Villitta Jane Kile of Huntsburg, Ohio, who died in February, 1880. To them were born Mary Lucena, wife of Aaron F. Gay of Boston, deceased; Martha H., who died in her fourteenth year; Henry Nelson, George Alvin, Edward Francis, William Fairchild and Herbert, the latter dying in infancy. He has twenty-one grandchildren now living. In November, 1883, Mr. Loud married Mrs. Nancy P. Miller of Brooklyn, New York. Mr. Loud has never posed as a politician, and while a member of the Michigan club of Detroit for political reasons, is not a club man. He has, however, always been an active advocate of the temperance cause, and all property sold by him in the village of Au Sable was sold with a liquor forfeiture clause, and in one instance he refused an offer of $10,000 for a piece of property if he would omit that clause, preferring to take $5,700 with the forfeiture clause in the deed. As a result of this adherence to principle, there is not a saloon or drugstore in the township of Au Sable where intoxicants can be obtained.

The record of Mr. Loud's life is one of good citizenship, energy and enterprise in business, and a constant endeavor to advance the mental, moral and spiritual influences which tend to elevate the race.

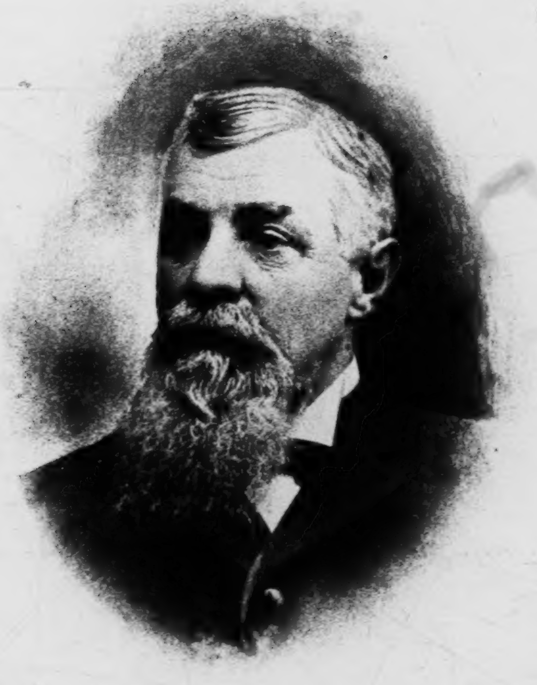
W. H. Potter.—W. H. Potter of Alpena, Michigan was a native of Canada, having been born at Marlborough, Quebec, September 8, 1841. In 1850 his parents removed to the States and settled at Port Huron, where their son was educated in the public schools. At the age of nineteen, he in 1860 went to Alpena, where he obtained a position as foreman in a lumber camp for Lockwood & Minor, and after one winter spent in this capacity, began logging under contract, which occupation he followed for the three subsequent winters. In 1865 he purchased an interest in the steam saw mill of B. H. Campbell & Co., at Alpena, a mill comprising one circular saw, one mulay, a siding and lath mill, with capacity for the manufacture of about 6,000,000 feet of lumber and 2,000,000 lath annually. With the improvements in saw mill machinery the capacity was increased from time to time by adding more powerful engines and a gang in place of the upright and siding mill, until by 1887 the mill had a rated capacity of 16,000,000 feet per season. In 1871 Mr. E. K. Potter, a brother of our subject, purchased an interest in the business, and the firm name became Campbell, Potter & Co., and so continued until 1875, when through the purchase by the two brothers of the interest of Mr. Campbell, the designation was changed to W. H. & E. K. Potter. In the fall of 1887 W. H. Potter sold his interest in the business of E. K. Potter & Sons, who continued its operation until the close of the season of 1893, when the timber supply belonging to the plant being exhausted, the business was closed out. W. H. Potter has since engaged in farming, having 1,000 acres of farming lands adjoining the city of Alpena on the west, which is stocked with one hundred and thirty head of Percheron stock and registered trotters. Mr. Potter resides in the city of Alpena and can be found at his spacious residence on Washington avenue when not attending to the duties of his Riverside stock farm.

Andrew Westbrook Comstock, a pioneer lumber manufacturer, was born in Port Huron, Michigan, October 5, 1838. He descends from an old family. The Comstocks came to this country from England, the Westbrooks from Holland. His grandmother's family of Waldo, traces its ancestry back to the sixteenth century, some of the men of the family having been knighted for meritorious service. Andrew obtained a little schooling in his native town and started to take a man's place in the world at the age of thirteen, at which time his father moved to a farm sixteen miles north of Port Huron, in the township of Burtchville and at the end of the wagon road. To the westward lay an unbroken wilderness; eastward, between Black river and Lake Huron there was an occasional settler. Mr. Comstock Sr. built a small water mill on his place and Andrew toiled both upon the farm and in the mill during the open season and in the winter time in the woods, getting out logs. This was in the early fifties. The logs were sawed at the mill and the lumber was rafted to Port Huron, after 1856 the population had increased and the product of the little mill was marketed at home. In this healthful open air life Andrew gained the blessing of perfect health and the vigor of body and mind which has since enabled him to endure greater labors. He was entrusted by his father with much of the business growing out of their saw mill industry and this gave him a commercial training of the utmost value.

In the fall of 1858, at the age of twenty, he went to the State Normal school at Ypsilanti, where he remained one year. It may well be imagined how eagerly the young man improved this winter at school, having had no instruction since he was ten years old. He then returned to the farm, the mill and the woods. The next two winters he taught successfully in the local district school. About this time he bought 80 acres of wild land, clearing 60 acres of it himself, with the help of one man and the friendly aid of the neighbors who joined him in the old fashioned "logging bees." Ambitious to rise and dissatisfied with the rough frontier life, he mortgaged his farm and, with the money thus obtained, went to Detroit and took a course at Bryant & Stratton's Commercial college. January 5, 1864, he came to Alpena without a dollar of money. He served as clerk in a store for two years, denied himself the luxuries and entertainments, saved his money and gained a little capital. Then, satisfied of his own strength, he embarked in 1866 in mercantile business for himself. The following year he built a shingle mill, bought a tract of pine land, and engaged in the manufacture of lumber. His old experience in the woods now served him in good stead. Mr. Comstock was guided by strong sense and good judgment, and brought to his operations the vigorous energy and good character, which have ever distinguished him. He was successful from the day he began life for himself. The location of Alpena on Thunder bay supplied him with ample facilities for shipping his products to market and his mill rapidly increased its operations, grew to a large concern, and finally brought him a fortune. He has continued the business until the present time.

Mr. Comstock has been a supervisor of his county and mayor of Alpena. His interests are now quite extended. He is president of the Alpena Banking Co., and a partner in H. S. Robinson & Co.'s, wholesale dealers and manufacturers of boots and shoes; also in a large grocery firm. His lumber firm operates not only in Alpena, but in Canada and Mississippi, where the concern owns considerable tracts of pine lands. He is associated with Judge P. S. Grosscup in real estate investments in Chicago, and owns iron lands in Mesaba and Vermillion, Michigan. Too busy to interest himself in clubs, he is nevertheless a member of the Masonic order in Detroit, having reached the 32d degree. He was married July 14, 1869, in Detroit to Lillie J. Little and his children are Carrie L. and Anna Winifred Comstock. His success is not due to sudden profits in speculation or to inheritance. Every dollar has been gained by steady perseverance, by legitimate industry, energy, determination to rise, and all those other qualities which many speak of as old-fashioned but which are yet absolutely the only foundation of sterling character and worthy success.

John A. Widner.—John A. Widner, who for many years has been identified with the lumber and cedar industry of Michigan, was born near Simcoe, Norfolk county, Canada, in 1842, his father, Nesbit C. Widner, being a prosperous farmer of that section. At the age of nineteen years John, with a few hundred dollars in his pocket, left his boyhood home to seek the fortune which was felt by him in common with many others, to be awaiting them in the then prominent gold fields of the Fraser river of British Columbia, whither he went by the steamer Ariel from New York to the isthmus of Panama, and thence to New Westminster, B. C., which was at that time the starting point for the much-vaunted Cariboo mines some five hundred miles to the north, where he spent two years, experiencing all the hardships and vicissitudes, which attached to the life of the hardy miners who sought to gather the golden grains of the upper Fraser river. Returning to the settlements again he spent several months in the mercantile employ of W. J. Armstrong, a large merchant of Westminster in a clerical capacity, but the mining regions still holding out allurements he, in company with three others, purchased a yoke of steers and built a cart which they loaded with provisions, and again started for the diggins, over the mountain road to the mouth of the Quesnelle river, which led to the Cariboo mines, packing their provisions thence to Sugar and Williams creek. Here their cattle were stolen, depriving them of their winter's provisions for meat. Here he remained until 1867 when, after an absence of five and half years, he returned to his native home, unexpected, but no less to the joy of his aged parents, who could scarcely believe that the rough, bearded man who greeted them, was the smooth-faced boy from whom they had so sorrowfully parted nearly six years before. Remaining at home but a few months he in 1868 went to Bay City, Michigan, where, after a couple of years in the mercantile business, he sold out, and in 1871 entered into partnership with Thomas Savage and commenced lumbering on the Rifle river, putting in long timber for rafting purposes. Having purchased but a small tract, one year sufficed to exhaust it, and the partnership was dissolved. In 1872 he formed a partnership with E. G. Sovereign and for two years the firm was engaged in getting out timber for the construction of bridges and trestles on the line of the Canada Southern railroad, then under construction, rafting the timber to Chatham, Canada. On the termination of this partnership, Mr. Widner continued the business of lumbering until the fall of 1879, when he turned his attention to the cedar industry which was now assuming large proportions in the demand which had arisen for telegraph poles in the rapid extension of new lines of telegraph all over the country, his field of operations being still the Rifle river. In 1880 he associated himself with Ed E. Ayre of Chicago, Illinois, then as still, one of the largest operators in cedar, and was now in position largely to extend his operations, his first contract being for 75,000 railroad ties, and for the past seventeen years his business has averaged no less than 500,000 cedar and hemlock ties annually, with an equal quantity of paving and fence posts, and large quantities of telegraph and telephone poles to supply a demand which has been enormous from all sections of the country in the paving of the streets of cities, fencing of farms, and the construction of lines of communication by railroad, telegraph or telephone. This branch of forestry, which as compared with lumber, is of more recent development has, during the past twenty years, assumed vast proportions, bringing into utilization a product which, while constituting an important source of wealth, and being found in great abundance, was considered of but little value until of later years. In the earlier days of this industry Mr. Widner's operations were confined to the Rifle river and the shores of Lake Huron at points where docks were available for its storage and shipment, but with the expansion of trade, storage was found upon the shores of the lake, and the product rafted to the vessel's side as she lay at anchor. The hauling out of rafts from the shore by means of lines stretching from the vessel to the shore, and the loading of ties through the port holes of the vessel, was a tedious process, and Mr. Widner's ingenuity was brought into successful play in the arranging of carriers by which with the aid of machinery the ties were taken from the water and dropped into the vessel's hold or upon her decks, at a vast



E P Barnard

saving of labor and expense, working a complete revolution in the handling of this product. Mr. Widner was married at Bay City in 1870 to Miss Elizabeth Gustin, and two sons and one daughter have blessed the union. He is a member of the Masonic order, a Knight Templar, and a member of the Mystic Shrine. In politics he is a Republican and in church relations an Episcopalian. He is manager of the Alpena Cedar Co., organized in 1893 by several of the leading business men of Alpena, the stock of which was in 1895 purchased by Ed E. Ayer and some of his co-laborers and associates, Mr. F. W. Rofer of Chicago becoming president, Artemus D. Watson vice-president, F. W. Hammond secretary and treasurer, and J. A. Widner manager, and the company as now constituted is recognized as the leading house of the country in this line of business, supplies being sought along the shores of Lakes Huron and Michigan, and the islands and main land of the Georgian bay. The trade in cedar has for many years past constituted one of the most important branches of the forestry industry of the northwest, thus utilizing and adding a most important and valuable element to the wealth of the nation. In January, 1898, the company dissolved, Mr. Widner continuing the business with Alpena as his headquarters.

Samuel Anker.—The self-made man is entitled to respect and he gets it in America. He represents all that is vigorous and manly in our institutions, and is deserving of all praise. Samuel Anker is one of those who has bent the force of circumstances to his will and is now in possession of a comfortable fortune. He was born in Rochester, Michigan, in 1852 to Samuel Anker Sr., who was brought to this country (about 1830) from his native land of England when an infant, by his widowed mother. When the subject of this sketch was about five years of age his father was engaged by J. K. Lockwood to assist him in the erection of a mill in the then wilderness at Alpena, at which time he was the only machinist or iron worker then in that section. He was also an engineer, and young Samuel in his boyhood having learned the trade of his father, at the age of twenty-three took full charge of a mill at Tawas City, where he remained for five years when he engaged in the lumber business as a jobber for the Whittemore Mill Co., the first manufacturers at Tawas City. The first year he cut about 3,000,000 feet of lumber, the next year 7,000,000, the next 4,500,000 feet, the next year a like amount and then the panic of 1873 and severe reverses were encountered. The following year, however, Mr. Anker erected a shingle mill on Tawas creek and also a saw mill, the former having a capacity of about 40,000 shingles and the latter about 40,000 feet of lumber, and he still has a five years' cut before him. In 1893 in company with Mr. Temple he built what is known as the Holland Hotel at East Tawas at an expense of $30,000, and in other ways he has assisted in improving the town and has always manifested unbounded public spirit.

He owns several houses and town lots; a fine business block, in which he carries on an extensive mercantile and grocery business, and has accumulated a fortune through his own efforts. In 1882 he was married to Miss Rose Stickney of Saginaw and they have two sons and a daughter. Mr. Anker is a member of the Masonic fraternity, is a Knight of Pythias, and Odd Fellow, and in political views is a strong Republican.

Frank W. Gilchrist.—The subject of this sketch is a man of unusual personal merit, possessed of a combination of mental qualities so remarkable that success in business was bound to follow the application of these attributes to the solution of almost any problem in life. He has turned his attention in the direction of lumbering for many years, the result being that his name is well known to the lumbering and kindred fraternities. He is a product of Concord, New Hampshire, where he was born in 1845, but at the age of three years was taken by his parents to Marine City, St. Clair county, Michigan, where the father, Albert Gilchrist, bought the mill formerly owned by Rust Bros., which had a capacity of 20,000 feet per day, the logs being obtained from the region of Pine river. He had had previous experience in a lumber mill in New Hampshire and had also conducted a mercantile business there, but he met with some reverses after engaging in the former business in Michigan for his mill caught fire and burned down in 1856. He then removed to Sand Beach and bought a water mill, owned by a Mr. Whitcomb, which he soon remodeled and changed to a steam mill and fitted it up with such modern machinery as could be procured at that time, among which were two circular saws, by which the capacity was increased to 40,000 feet per day. In 1863 he disposed of his plant and moved to Oberlin, Ohio, where he is living in retirement, and in the enjoyment of the fruits of his early industry, at the advanced age of eighty years, having been born in New Hampshire in 1816 of Scotch parents. Frank W. Gilchrist went to Alpena in 1867, and erected a large saw mill, having previously located ten or twelve thousand acres of pine lands upon adjacent streams. The mill was fitted up in modern style, has a capacity of 150,000 feet per day and still gives employment to about one hundred men. He is also interested in the Rust, Owen Lumber Co., incorporated, with head offices at Eau Claire, Wisconsin, also the Three States Lumber Co., with offices also at Eau Claire, the latter company owning large timber claims in Missouri. Besides this Mr. Gilchrist has large interests in steam barges, tugs, etc., and the Gilchrist fleet is famous as one of the largest on the lakes. With others he owns large tracts of redwood land in California, in fact his interests are many and varied, as well as highly important. As a Republican Mr. Gilchrist was elected mayor of Alpena, which office he is holding at the present time, and he has also been supervisor several terms. He is a member of the Masonic body, in which he has taken all the degrees with the exception of the 33d. He was married to Miss Mary E. Rust of Saginaw and they have an interesting family of three sons and one daughter.

CHAPTER XIII.—THE WEST SIDE OF THE STATE.

EARLY OPERATIONS ON GRAND RIVER.—GRAND RAPIDS AND GRAND HAVEN.

ALMOST simultaneously within the period embraced by the years 1833-1835, beside the settlements heretofore mentioned at Grand Rapids and Ionia began those at Lyons, Lowell, Grandville and Grand Haven, and soon after the smaller hamlets at Ada and Plainfield. In 1832 before permanent white settlers began to arrive, a saw mill had been erected at the Indian mission established at Grand Rapids. It was of small calibre, and was located on a little creek at a point where now the Grand Rapids & Indiana road crosses the track of the Detroit, Grand Haven & Milwaukee road, but it produced lumber, some of which was hauled as far east as Ionia (30 miles). Until 1834 it was the only mill in the Grand rivervalley, but in that year an undershot wheel water mill was erected in the east channel of the river and in the course of the next four or five years a half dozen or more mills were erected at various points in the neighborhood. In 1836-7 steamboat building began at Grand Rapids and Grand Haven, and the first steam power for saw mill work was placed at Grand Haven (Spring Lake). Iron foundries were in 1838 established on a small scale at Grand Rapids and Grandville. About this time several saw mills were established at or near Grandville, and the mill of Nathaniel J. Brown and Roswell Britton on Buck creek no doubt cut the first white pine lumber which reached Chicago from Michigan (April 7, 1835). Bull & Wright built a mill on Buck creek and commenced sawing in July 1834, but the mill was not a great success and never shipped any lumber. A Mr. Gordon built a mill in 1833-4 above the Bull & Wright mill, and in August 1835 sold it to a Grand Haven company, of which Thomas D. Gilbert was a member (see biography). In 1840 the mill of Butts & Hathaway was erected at Grand Haven, the first of which we find record at that point, occupying the site since occupied by the depot of the Detroit, Grand Haven and Milwaukee railroad.

In 1847 there were two small water mills at what is now Rockford, on Rogue river, emptying into the Grand, a few miles from Grand Rapids, these were owned by A. Roberts & Son and —— French; just below these was the mill of White & Rathbun, and a short distance further down the river a family named Myers had a small mill; in 1854-5 John Clancy built a mill still further down the river, and in 1852 W. T. Powers built a steam mill at the head of the rapids, with a sixty-horse power engine and circular saw, which it is claimed was the first of any size in the western part, if not first in the State, and it was the first to use logs, run out of the Rogue river. Mr. Powers quit manufacturing in 1870. Some time previous to 1852, probably about 1848, C. C. Comstock and David Caswell, had three mills on the canal at Grand Rapids, two of which were destroyed by fire in 1854, and rebuilt the following year, one a circular and edger of 50,000 per day capacity, the other a mulay and "board mill" for cutting round logs and some short time later Mr. Comstock had a mill on Rogue river, with a mulay and siding mill of 8,000 feet daily capacity, which burned in 1859. In 1847 Nelson & Holden had a mill on the rapids, and the same year —— Waters built a mill. Subsequent to 1852 there were four mills on the Rogue river, but the larger part of the logs cut on that stream, together with those on Fish creek and Flat river, furnished the stock for the mills at Grand Rapids and Grand Haven, averaging from 90,000,000 feet to as high as 130,000,000 feet yearly, of which quantity Flat river supplied the largest proportion. The supply practically ceased in 1884.

In 1856 Whittemore & Powers (William T.) had a large steam mill at Grand Rapids, which operated a circular, a siding mill, and a gang. C. C. Comstock and Harry Watrous each had mills containing upright saws and siding machines; Colby & Co. and James M. Nelson also had mills with upright saws, and soon after that date steam saw mills were built by A Ferris, and M. Stevens, and at that date we add John Clancy, A. Roberts & Son, and —— Lloyd (at Rockford), and the Comstock mill at Algona Center, while on Mill creek three miles above Grand Rapids were the mills of —— Plumb, W. H. Withee and John Stephenson, all of which cut pine lumber, which was rafted down Grand river to a shipping point at Grand Haven. These mills were all located in a dense pine forest, and some of them, as before noted, had been in operation for many years. The Grand Rapids Boom Co. was organized in March 1870, and continued in operation until 1893, when the streams yielded but 3,266,566 feet, boom scale, and its further operation was suspended. During these twenty-five years the output reached 737,956,543 feet boom scale, the average being 29,500,000 feet per year; the largest years being 1873, with 56,339,522 feet; 1881, 53,277,398 feet and 1882, 54,353,498 feet, from which date there was a steady decline to 14,723,782 feet in 1889, and 3,266,566 feet in 1893. A fair estimate of the total yield of logs from the forests adjacent to and above Grand Rapids, which found market over the waters of Grand River, would probably exceed three and a half billion feet. There are still one or two small mills at Grand Rapids, which are engaged in sawing hardwood for the numerous furniture factories which have made that city famous, the main stock for which, however, is obtained from mills upon the lines of railroad centering in Grand Rapids.

A large proportion of the logs which supplied the mills at Grand Haven and Spring Lake, were from Flat river, a tributary of Grand river, which it joins at Lowell on the border of Ionia county, whence it extends north through Ionia and Montcalm counties, taking its rise in Mecosta county. From about 1874 the logs from this stream were handled by a company known as the Grand River and Greenville Log Running Company, whose operations ceased in 1892, when the sum total of logs handled by the company was found to be 1,427,000,000 feet. Previous to the organization of the company, about 300,000,000 feet had already been run from this stream, making a total log output of 1,727,000,000 feet.

Grand Haven and Spring Lake.—The general history of the city and locality at the mouth of the Grand river has been written in connection with the earlier settlement of Grand Rapids, and the river above. It was from this point that Nathaniel J. Brown, one of the firm of Button & Brown, shipped in the spring of 1835, the first cargo of white pine lumber which reached the young city of Chicago, and which proved the pioneer initial shipment of the vast quantity of more than 50,000,000,000 feet which since that time has sought that market. The Britton & Brown mill, as well as others heretofore mentioned, was located near Grandville, near and above which the vast quantity of logs previously mentioned as constituting the work of the boom companies of the Grand river were procured. The earlier manufacture of the river was confined to the up river mills, until in 1840 Butts & Hathaway erected the mill at Grand Haven, before alluded to. From 1844 to 1850 Thomas D. Gilbert and his brother, Francis B. Gilbert, had a mill at the mouth of the river, and shortly after Rev. William M. Ferry settled at Spring Lake a couple of miles from the river's mouth, where he built a saw mill. We have been able to obtain but meagre information regarding the earlier mills, but so early as 1845 the business at Grand Haven, largely supplied from up river mills, had attained large proportions. Under date of November 28, 1846, the Chicago Journal says, in summing up the season's business of the city of Chicago, "Twenty vessels left Grand Haven on the 24th inst. with lumber for Chicago," and a later issue of the Journal says: "The exports of lumber from Grand Haven during 1848 amounted to 15,500,000 feet of lumber, worth $126,750; 8,500,000 shingles, worth $14,875; and 550 pine spars." At this time one —— Hopkins had a mill at Spring Lake, with capacity for manufacturing 5,000,000 feet per season, and other mills were also in operation. In 1858 Cutler & Savidge bought the Hopkins mill, together with one known as the "Hain" mill, and soon after erected a large mill, increasing their sawing capacity to 50,000,000 feet per season; other mills were erected from year to year until in 1873 the manufacture at this point was reported at 117,535,000 feet of lumber and 36,000,000 shingles. The production at this point reached its high water mark in 1882, with a reported cut of 192,706,632 feet of lumber, and 175,000,000 shingles.

The leading operators at Grand Haven and Spring Lake may be named as Gilbert & Co., W. M. Ferry & Sons, Butts & Hathaway, Cutler & Savidge, White & Friant, Wyman Buswell & Co., A. J. Emlaw & Co., Monroe Boyce & Co., William Bakker & Son, M. Batchellor, H. Rysdorf, W. T. Bailey, Boyden & Akely, Smith & Field and Vose & Browner.

From its culminating point in 1882 the production rapidly decreased, until in 1890 but 32,668,392 feet of lumber was reported, and the record of production ends with 1895, when 300,000 feet is all that finds place in the reports.

During the period from 1873 to 1895 the recorded production aggregated 1,754,709,757 feet of lumber, and 1,403,628,750 shingles, but adding 75 per cent as a fair estimate of the unrecorded product, and we many safely set down the product of the mills at this point at a gross aggregate of three and a half billion feet, of which the forests of Flat river supplied nearly 2,000,000,000 feet.

Thomas D. Gilbert.—"The story of his life is an open book." Few men have played a more important part in the development of Western Michigan, than did Thomas D. Gilbert of Grand Rapids, who was born in Greenfield, Massachusetts, December 13th, 1815, and died at Grand Rapids November 18th, 1894, at the ripe age of seventy-eight years, eleven months and three days. His father Thomas was born at Greenfield in 1793, and came of a family noted for its loyalty to the cause of American Independence, and no less as a prominent family during colonial times, the military spirit descending to the son, who was a soldier in the war of 1812-15, just previous to the birth of his son Thomas D., the subject of this sketch in 1815. Harriet, the mother of Thomas D., was also a native of Massachusetts, being a daughter of Ebenezer Arms, a member of one of the oldest families of the Bay State. With such illustrious parentage, what wonder that the subject of this sketch was a man among men, and one who when called to leave the activities of this life, departed mid the tears of affectionate regard and regret, not only in his immediate family circle, but throughout that larger circle which for many years had known and honored him as one of nature's noblemen. Mr. Gilbert was the elder in a family consisting of two sons and five daughters. Until the age of fourteen, he attended the common school of his native village, and the Academy at Deerfield, Massachusetts. In 1829 he became a clerk in the general store of John Clark of Northampton, a gentleman noted among the philanthropists of the day, whose beneficent influences and example, no doubt, did much to ground the mind of Thomas, in that formative period of his life, in those nobler principles which had been inculcated by his parents. He remained in this employ for the succeeding five years. It was while living at Northampton that Mr. Gilbert himself contributed, and solicited aid from his friends, to purchase a few books which formed the nucleus of the excellent public library of which that city now boasts. In 1834 Thomas, in the business interests of some eastern friends, joined a party of emigrants to the wilds of Michigan, a most unsavory locality in the minds of many in the east, and one from which it was greatly doubted if the venturesome traveller would ever return. Reaching the mouth of Grand river, he found a settlement consisting of but one dwelling, but the beauty of the surroundings, no less than an appreciation of what must inevitably result through its growth within a few years, decided him to select Grand Haven as the scene of his future activities, and in June 1835 he became interested in a small saw mill which was being erected by a company known as The Grand Haven Lumber Company, on Buck creek, a few miles from Grand Rapids. The mill was operated by a flutter wheel, the power being obtained from a dam thrown across the creek, and the machinery consisted of a single gate or sash saw. For some reason the mill did not prove the success which its builders hoped for it, and no lumber was shipped, outside of a purely local demand from incoming settlers. The panic of 1837 forced the company into liquidation, and for the succeeding five years Mr. Gilbert labored diligently and successfully to pay off the honest obligations of the company, and again as a free man to undertake the accumulation of property. In 1842 he was elected sheriff of Ottawa county, holding that office for two years. During his incumbency of this office, he was called upon to arrest a man named Miller, who had killed an Indian in a drunken brawl, and had made his escape to the south. The Indians were highly incensed and it became doubly politic to secure the murderer, lest the Indians should take the law into their own hands and carry their revenge beyond the punishment of the real culprit. There were no roads, but the young sheriff had acquired some knowledge of woodcraft, and understood the importance of even such slight traces as would escape the notice of the average man, so taking to the beach, he, knowing that the Indians did not chew tobacco, traced the fugitive by the stain of his spittle on the snow and it led him on a journey of forty miles to the government light house at the mouth of the Kalamazoo river, where, losing the trail, but knowing that the fellow must seek food, and there was no other place for him to find it, Sheriff Gilbert waited patiently and was rewarded by the coming of the starved and exhausted outlaw whom he arrested and took back to Grand Haven, where he was tried and sentenced to be hung, the sentence being afterward commuted to imprisonment for life, and he was eventually pardoned. In 1844 Mr. Gilbert was joined by his brother Francis B. Gilbert, and the firm of Gilbert & Co. was organized to engage in lumbering, and also in the business of forwarding and commission, and this firm continued for twelve years, and until 1856, during the last six years of which the business was largely extended, owing to the great increase in demand from Chicago because of the completion of the Illinois & Michigan Canal and the increased facilities for reaching the rapidly settling country and prairies of Illinois and the farther west.

In 1851-54 Mr. Gilbert was connected with the Chicago lumber trade, being a partner of George C. Morton, under the firm name of George C. Morton & Co., with a yard on Van Buren street and the river, extending to Canal street. The owner of the property was anxious to have Mr. Gilbert purchase it, but thinking the price too high, he preferred to lease, and the second year, with an increased rental, and an additional price for the property, he still declined, but the third year he was only too glad to accept the offer to purchase at a very large advance upon the first offer.

In 1856 the store and business at Grand Haven was given up, the mill disposed of, and Mr. Gilbert spent the next two years in a lengthy tour embracing the United States, Europe and the Orient. In 1858 he returned, making his home at Grand Rapids, where he continued to reside until his death in 1894. During the mercantile career mentioned above, Mr. Gilbert became thoroughly acquainted with every bar, headland and peculiarity of Grand river, and in later years possessed a fund of anecdotes, each one of which was applicable to some particular spot along its banks. In the early "fifties" he formed a project to buy up a large amount of Mexican war warrants, and with them to locate a large body of pine lands, for which he foresaw a future value, but being unable to enlist eastern capital, the project was given up. Warrants could at that time be obtained at a merely nominal price, and the project, had it been carried out would have made millionaires of all connected with it. Becoming interested in and one of the originators of the Grand Rapids Gas Works Company, he was three years later made its manager, combining with the duties of that position, those of secretary and treasurer. The growth of this company has been co-extensive with that of the city, under Mr. Gilbert's wise appreciation of its ever increasing needs, so that it has long held the enviable reputation of being the best in the State. Mr. Gilbert assisted in the organization in 1865 of the City National Bank of Grand Rapids, and was elected its president, an office which he continued to hold for the succeeding twenty years of its charter existence, and when it was succeeded by the National City Bank, he was elected to the same position and continued in the office up to the time of his decease. Scarcely could any record more fully portray the probity and integrity of the man than the continuance by his fellow stockholders for a period of thirty years in so responsible a position. During the panic of 1873, the credit of the city of Grand Rapids being at stake, in its inability to pay either principal or interest upon its bonds, because of the general depression, an endeavor to obtain money from the banks of Chicago and New York having failed, Mr. Gilbert announced that the credit of the bank of which he was president, and as well his private fortune, was pledged to the safety of the city's credit. Public confidence was at once restored and all of the banking institutions of the city were established upon a firmer basis than before. Mr. Gilbert was one of the originators of the Michigan Barrel Co., one of the staunchest of the lumber industries of Grand Rapids; he was also one of the incorporators of the Grand Rapids Brush Co., and of many other of the city's industries. As a public man Mr. Gilbert was appreciated, being called to serve in various public positions with the highest acceptability. Elected in 1860 to the State Legislature whose duties in the year of the inception of the rebellion were of no ordinary character, Mr. Gilbert served upon the important committee of ways and means, and upon that of municipal corporations. In 1863 he was elected a member of the board of regents of the University of Michigan, and for twelve years was chairman of its committee on finance. In his earlier days a Whig, he became an ardent Republican, although always tolerant and charitable towards those who differed with him politically, even in the days when rancor and strife dominated the nation. He was twice elected a member of the Common Council of Grand Rapids, representing the second ward, a position accepted by him simply as a matter of duty and not of choice. He was appointed a member of the Board of Public Works at its organization in 1873 and held the office of president of the board until 1878; he was also a member of the Board of Education for many years. He was for nearly forty years president and treasurer and a liberal contributor to the work of the Union Benevolent Association and rendered it most efficient service in its charitable work, and the attainment of the proportions of a splendid hospital, generously providing a home for the aged, and the ministry of skilled nurses, trained surgeons and skillful physicians to the sick and suffering. He was president of the Old Settlers' Association, and took a deep interest in perpetuating the history of the early settlement of the State. He was one of the charter members of the Grand Rapids Board of Trade, and was a member of its directorate at the time of his death. He was brought up in the faith of the Congregational church and continued an active and useful adherent of that denomination, setting an example of probity and upright living, worthy of the emulation of those who were brought under the influence of his exemplary life.

Mr. Gilbert was married November 23d, 1871, to Miss Angie Mary, daughter of Rev. Abel Bingham, a soldier of the war of 1812, and for nearly thirty years a missionary to the Ojibeway Indians of Lake Superior, at Sault Ste. Marie. Mrs. Gilbert survives to reverence the name and memory of one who was a benizen of blessing not only to herself, but to all who were brought within the scope of his influence during a long, useful and eventful life. Mr. Gilbert was a leader among men, and his integrity and honesty of purpose were so thoroughly recognized that he had but to propose, and his enterprise found acceptance, whether in business projects or benevolence, in social or political problems, his views were recognized as coming from the honest convictions of an upright man. Of none whose history shall in these pages be recorded, can it more truly be said that he left the impress of a noble purpose upon every endeavor of his life. Surely such an example is worthy of the fullest emulation.

Soon after the decease of Mr. Gilbert, and in loving recognition of his character not alone as a citizen, but as a business man and a public benefactor, his associates in the bank and in the gas company, applied to the common council of Grand Rapids for the privilege of erecting in the public park of the city, a bronze statue (bust) of heroic size, commemorative of the esteem in which Mr. Gilbert was held by the general public, no less than by his more immediate business associates. This privilege was granted and Lorado Taft, the well known artist of Chicago, was commissioned to execute the work, and on June 5th, 1896, the statue was unveiled in the presence of a vast concourse of citizens. The statue is three feet in height, and rests upon a granite pedestal consisting of base and plinth, the total height above the foundation being twelve (12) feet. The unveiling and dedication was marked by many pleasant features, all testifying to the universal esteem in which Mr. Gilbert was held by his fellow citizens.

The attendance was large, embracing many prominent citizens, not only of Grand Rapids, but from various portions of Michigan and other States. The exercises were opened by prayer offered by Rev. D. F. Bradley, followed by the singing of Luther's hymn by the Schubert quartette, and eulogistic addresses of presentation to the city, by Col. George G. Briggs, Hon. George W. Thayer, and President Angell of Michigan University, all of which bore witness to the exalted character of Mr. Gilbert as a man and as a public spirited citizen. At the conclusion of President Angell's address, the colors which covered the bust and the upper portion of the pedestal, were withdrawn by Francis Dwight Gilbert, a nephew of Mr. Thomas D. Gilbert, and the features of the philanthropist were exposed to view amid the applause of the audience. The monument was accepted by Mayor Stow on behalf of the city and the exercises closed with the singing of "America." The National City Bank and the Grand Rapids Gas Co., with both of which institutions Mr. Gilbert had been long and intimately connected, were the principal contributors to the fund for the erection of the monument. In front of the granite pedestal a bronze plate is inserted, bearing the inscription:

A Tribute
To
The memory of
THOMAS D. GILBERT,
Whose Life Was
A Record of Generous Deeds
and
Public Usefulness.

Hon. William T. Powers.—Whatever may be said by demagogues about the tyranny of capital, the man who affords employment to his fellow men and maintains industries which turn out articles of utility does more real good for his generation than all the combined agitators of the country. Under our existing civilization the only possible solution to the problem of the prevention of want and suffering is found in the great manufacturing plants, which have the capital necessary to pay wages to their many employers before pay is received for the goods. In this connection the name of William T. Powers stands boldly out and is indissoluble with the lumber manufacturing interests of the northwest. He was born in Bristol, Grafton county, New Hampshire, a son of Johnathan Powers, an oil cloth manufacturer of Lansingburg, but in 1827 he moved to Troy, New York and there William T. passed his youth. At the age of twenty he engaged, in a small way, in the manufacture of furniture in Troy, but at the age of twenty-seven came west to Grand Rapids, Mich., (about 1847), established a furniture manufacturing business, and continued it until about 1857, in connection with which he had a wholesale and retail furniture store. He established a plant on the river and was the first man in this section to put in any wood-working machinery, a shaper being shipped here from the east in 1857. He sold this shaper to Julian Burkey and this was the first machinery used by him in the manufacture of furniture.

During this time Mr. Powers was engaged in the manufacture of lumber also, at first in order to supply the furniture factory, his plant being supplied with timber from his own extensive timber lands, and it was not long ere he found it necessary to enlarge his business, and in order to meet the demands, built a mill at the head of the Rapids. In 1848 and 1849 he did a large business in cutting chair materials and other special lumber, shipping his product to Chicago and Milwaukee. He sawed a great deal of walnut, cherry and pine lumber for furniture, and in 1852 cut the most of the material for the McCormick Reaper Co. at his Grand Rapids mill. Two saw mills owned by him were soon in successful operation, one on the west side of the river and the other at the head of the rapids, and it was found necessary to locate yards in Chicago, one being at the forks of the Chicago river and one on the south branch. In 1866 he purchased the water power on the west side of the Grand river, at Grand Rapids, and with the owners of the power on the east side, built the dam on the river, in which he still owns an interest. He also built a number of buildings on the canal for manufacturing purposes, one being the Wolverine Chair Factory, and in conducting his numerous enterprises has given employment to many men. He, with his son, William H. Powers, purchased the Michigan Iron Works, but Mr. Powers is now sole manager of the business, as his son's death occurred February 25, 1895. He owns forty per cent interest in the stock of the Electric Light Co. of Grand Rapids and in 1874 built the Powers Opera House and building one of the best business blocks in the city. Nor are his interests alone confined to Grand Rapids, for he owns a manufacturing plant and planing mill at Spearfish, South Dakota, and also a stucco manufactory, all of which necessitate a visit from him at least once a year. A Democrat in politics, he was elected Mayor of Grand Rapids in 1857, having previously served as City Treasurer. Mr. Powers' son Charles died in 1893, but he has two daughters: Sarah, wife of Dr. F. S. Ledeboer of Spearfish, Dakota, and Mary, the wife of J. W. Spooner of Grand Rapids. Mr. Powers is one of the substantial business men of Michigan, shrewd and far-sighted, and in many ways has been of great benefit to the city in which he has so long made his home.

Dwight Cutler.—Cutler & Savidge.—No history of Grand Haven, or of its lumber interests would approach correctness or completion without a record of the operations of the firm of Cutler & Savidge, and the Cutler-Savidge Lumber Company.

Dwight Cutler was born at Amherst, Massachusetts, in 1830, the son of Doctor Isaac G. Cutler, of that State, where he died in 1834. Dwight attended school in his native place, and later was a student at Williston Seminary, East Hampton, Mass. In 1850 he came west and entered the employ of Thomas D. Gilbert at Grand Haven and Spring Lake. In 1854 he formed a connection with —— Haxton and —— Werts and the firm established a mercantile and forwarding business at Grand Haven, continuing in that business until 1858, their trade including a general store and the purchase and sale of lumber and shingles. In 1858 Mr. Cutler formed an alliance with Hunter Savidge and the firm of Cutler & Savidge purchased the saw mill of Hopkins & Brothers at Spring Lake, which had capacity for the manufacture of 5,000,000 feet per season, and by procuring sawing at other than their own mill, did a business of from eight to ten million feet per year. A few years later the firm built another mill alongside of the old mill and also purchased what was known as the "Haire" mill, which increased their capacity to 50,000,000 feet per annum. 1874 they incorporated the Cutler & Savidge Lumber Company, taking in as stockholders some of their more trusted and energetic employes, awarding to each a certain amount of stock, to be paid for out of the earnings of the business, the dividends from which soon gave them paid up stock, and proved the nucleus of abundant fortunes. By this course the company secured the services of efficient and reliable men, who could be trusted in responsible positions. The affairs of the company prospered until for many years the volume of business reached to from 65,000,000 to 75,000,000 feet of lumber per year, which was conveyed to the wholesale yards of the company which from time to time had been established at Chicago, Michigan City and Detroit (while interior yards were located at Indianapolis and South Bend, Indiana), by vessels owned by the company, of which the schooners "David Macy" and "Hunter Savidge" were built by them at Grand Haven. For many years the pay roll of the company amounted to $1,500 per day in the employment of 450 men at the mills at Grand Haven and Spring Lake, with nearly a thousand more at their various yards, their vessels, and in operating the logging railroads, two of which have been constructed by the company in the furtherance of their immense business. For many years the log stock of the company came from their own lands, located on the Rogue and Flat rivers and Fish creek, tributaries of the Grand river, streams which have perhaps, for their lengths, never been exceeded in the quantity of timber which has been taken from their banks, or floated upon their waters. The operations of the company included the cutting of the timber, its floatage to the mills, its manufacture into lumber, and to no inconsiderable extent, its preparation through the planing mill, its shipment, and finally its sale, not alone to the wholesaler but as well from their retail yards, direct to the consumer. For many years previous to his death in 1881, Mr. Savidge had been president of the company, but at that time Mr. Cutler was elected to that office, and with the assistance of the two sons of Mr. Savidge, his own son, and the old employes and officers of the company, including Messrs. James Wilson, H. Harbeck, F. C. Berry, John N. Williams and Samuel Main, the business was continued until the season of 1891, when the timber supply of the company being exhausted, they turned their attention to the Canadian forests, purchasing four townships upon the waters of the Spanish river of Georgian Bay, at the mouth of which is located the village of Cutler, where the company have erected a

H. Savidge

two circular and gang saw mill and planing mill. Having closed out their various yards, the product of the Canadian mill will be principally distributed in wholesale lots by vessel, while a car trade is to be cultivated over the line of the Canadian Pacific railroad, which runs through their mill yard. The company has a capital of $500,000 and the energy of its young officers and stockholders, with the counsel of their veteran president, may be expected to fully maintain the excellent reputation which was so firmly established by its progenitors. The company has a timber supply which is calculated to last for thirty years, finding market for their product, wherever vessels can reach a lake port, or railroads penetrate, whether to New England or the great west. During its continuance at Grand Haven the company also owned and operated a saw mill at LeRoy, on the line of the G. R. & I. railroad, at which they manufactured about 10,000,000 feet per year; this mill ceased to operate with the exhaustion of its timber in 1894.

So few comparatively comprehend what it means to run a large lumber camp, that we include some statistics, showing the volume and character of the supplies requisite in the conduct of the camps of the Cutler Savidge Lumber Co, as furnished to the historian by Mr. John A. Wilson, who has charge of the camps on Spanish river, Canada, employing one hundred horses and four hundred men in the season included between August 1st and June 1st, viz: 23,000 bushels oats; 500 tons hay; 600 barrels flour; 170 barrels pork; 155 barrels corned beef; 110 barrels sugar; 36 barrels dried apples; 39 barrels currants; 50 boxes prunes; 50 barrels crackers; 29 half barrels syrup; 82 chests tea; 55 barrels beans; 119 barrels peas; 2,024 pounds rice; 75 boxes soap; 40 barrels salt; 22 barrels pickles; 33 barrels sauer kraut; 17 barrels vinegar; 14,491 pounds butter; 68 cases baking powder; 16 cases soda; 300 pounds mustard; 310 pounds ginger; 330 pounds pepper; 14 pounds allspice; 1800 pounds chewing tobacco; 1500 pounds smoking tobacco; 250 pairs blankets; 66 boxes axes; 71 dozen axe handles; 93 head beef cattle; 10,752 pounds fresh beef and pork; beside a vast quantity of miscellaneous articles, aggregating a weight of over two million pounds, which required to be transported a distance of thirty-five miles over the worst and roughest kind of roads, including steep mountains, taking three days for the trip from the starting point to the camps and return. These figures give a slight idea of the expense attending the operations of the modern lumberman, and present a marked contrast to the conditions which prevailed in the earlier days, as stated elsewhere in this history.

Mr. Cutler has in the course of his business been considerably interested in vessels, being at one time the owner of several, including the propeller Troy, schooners New Hampshire and Adriatic. When he sold out his mercantile business he disposed of these vessels, but the firm and company later owned quite a fleet, including the Kate Lyons, Hunter Savidge and David Macy. As a firm, Cutler & Savidge were the first to undertake the running of logs over the Rapids of Grand river, and were the principal organizers of the Ottawa County Booming Co., and previous to the incorporation of the company in 1874 had cut 175,000,000 feet of lumber, while to the present time and since the incorporation, they have cut from 650,000,000 to 700,000,000 feet, or in the aggregate but little less than one billion feet since 1858, all of which came from the tributaries of the Grand river. The reader of this history will recall our account in earlier pages of the building by the missionaries of the first mill at Grand Rapids, whose product of a few hundred feet per day at that time sufficed for the wants of the Indians, and the few settlers who had found their way into the wilderness, and will draw their own contrasts in comparing the stupendous cut of the Cutler-Savidge Company, with the records of that time.

But Mr. Cutler did not confine his efforts to his operations at Grand Haven, having been largely interested in the operation of the Chippewa Lumber Co. at Chippewa Lake (elsewhere noted) whose production reached an aggregate of 150,000,000 feet of lumber. Curiosity is often expressed regarding the yield of timber per acre, and we learn from Mr. Savidge of forty acres on Flat river which yielded 2,365,000 feet of pine, and of one acre on Rouge river which cut 150,000 feet of merchantable timber. Such cuts, however, were abnormally large, although such prolific cuts were occasionally reported.

Mr. Cutler has been active in many industries outside of lumber. He organized the First National Bank of Grand Haven, and both himself and Mr. Savidge were interested in the Challenge Corn Planter Works, one of the leading industries of Grand Haven. He is still interested in vessels, and is a director in the Grand Rapids Fire Insurance Co. In politics a Republican, he has three times been honored by election as Mayor of Grand Haven. He has done more than any other man for the advancement of the interests of the city by building and otherwise. By fire he in 1889 lost his handsome residence, together with the Cutler House, a modern and well appointed hotel, involving a loss of $250,000. He is the owner of the "New Cutler," a handsome hotel erected upon the site of the former building.

Mr. Cutler was married in 1858 to Miss Frances E. Slayton of Vermont, and to them have been born one son and four daughters. The son, D. Cutler, Jr., is connected with the business and resides at Detroit, where he married a daughter of Hon. C. C. Bowen.

It is related of Mr. Butler that making a visit to Vermont at an early day (about 1860), he was told of a wonderful circular saw mill in the neighborhood, which he was urged to visit, as one of the curiosities of the neighborhood, and as a lumberman from the benighted regions of the west he could not fail to be impressed with the wonderful work which it accomplished. He found it to be a circular attached directly to the pitman of a water wheel, making the same number of revolutions with the wheel, and cutting about 2,500 feet per day. When he told the proud sawyer that he had seen a test of the circular in the Ferry mill at Spring Lake, when it cut 6,360 feet in an hour, he was informed that it was an impossibility, and from that hour Mr. Cutler's reputation for veracity was at a low ebb in that section. However, it is needless to add that in his own bailiwick, where he is well known, Mr. Cutler's word stands undisputed upon any subject upon which he expresses an opinion.

Hunter Savidge, (deceased), represented modern progressive ideas and was not only a business man of recognized ability, but an authority on all matters relating to the lumber industry. He was a man who combined modesty with rare ability and although his life's work is finished, its fruit garnered, the record of its incidents remains to tell the story of worthy success in living. He was born in Columbia county, Pennsylvania, April 6, 1828, and died in Michigan in 1881. For many years he was a member of the firm of Cutler & Savidge of Grand Haven and Spring Lake, and was a man of recognized ability. He was the son of Benjamin and Esther (Hunter) Savidge, both natives of New Jersey and of English extraction. Hunter Savidge was the fifth of thirteen children. After having received a good practical education he began teaching in the schools of his neighborhood when but sixteen years old. A desire for something more remunerative caused him to leave his native state and settle in Illinois in 1851. He first made his home at Rockford, where he taught school for a few months and then returned to Pennsylvania, where he learned the carpenter trade, in which he had spent considerable time previously. Becoming proficient in this, he returned to Rockford, Illinois, and started a contracting and building business, which he conducted with fair success until 1856. In the spring of that year he went to "Mill Point," (as Spring Lake was then known), to buy lumber, and soon after organized the firm of Young, Savidge & Montague, to engage in the manufacture of lumber. The operations of this firm resulted in disaster and upon its failure Mr. Savidge was left to liquidate its indebtedness from his personal and private means.

Although this was a severe backset for a young man just starting out in business, Mr. Savidge was not at all discouraged and in 1858 formed a partnership with D. Cutler, under the firm name of Cutler & Savidge. Thus the business was conducted until 1874, when it was incorporated under the name of The Cutler & Savidge Lumber Company, with an authorized capital of $500,000. Of this company Mr. Savidge was president until his death in 1881, as before mentioned.

It was not strange that Mr. Savidge should take a commanding position in the business world for few men exercised a wider influence, or are gifted with greater intelligence or business acumen. Not only was he prominent in his own locality but he was well known all over the state. He was one of the organizers of the Ottawa County Booming Company, holding the office of president of that company until his death, and was also a director in the Grand River Boom Company and in the Grand Haven National Bank. His pride in the city of his residence was shown in the building of the Spring Lake Hotel, which, erected on the banks of that beautiful enlargement of Grand river, speedily became one of the most beautiful summer resorts in the state of Michigan, and will no doubt attract visitors from all portions of the land for a generation to come. As a lumberman, Mr. Savidge stood pre-eminent not only in his judgment of the value of timber lands, but in the handling of large companies of men, as was necessary in his extensive operations in the lumber camp and about the saw mill. Being the "all around" man of the firm and company, upon him devolved the "looking" and locating of lands, the management of the camps of the company, the superintendence of building and repairing and the successful operating of the saw mills, as well as the outside work in general of the company. Although an active and wideawake business man, Mr. Savidge did not lose sight of his duties as a citizen and was devoted to the interests of Spring Lake. He was president of its council for many years and could have held any office in the gift of the people, but while ever ready to give counsel and advice, he did not aspire to office, refusing the proffer of state and national nominations when his election would have been a foregone conclusion. Instead, his time was given to the manufacturing of from seventy to eighty million feet of lumber per annum, and to the employing of from four hundred to five hundred men. In 1880 these exactions told seriously upon his health and although a trip to California was undertaken, it was all in vain and he passed away in April of the following year. His son, William Savidge, took his place in the business and has since been vice-president of the Cutler-Savidge Lumber Company which, while the work of the mills at Spring Lake ended in 1889, the timber supply being exhausted, still continues its business and in the same year purchased the White & Friant mill at Leroy, which it operated until 1893. The present officers of the company are: D. Cutler, president; William Savidge, vice-president; James A. Wilson, second vice-president; Dwight Cutler, Jr., treasurer, and H. F. Harbeck, secretary. The two sons of Mr. Savidge, William and George P., are interested in the company, William as above stated. He is a young man of more than ordinary business ability and a graduate of Ann Arbor University of the class of 1884. He was born at Spring Lake September 30, 1863. George P. was born at Spring Lake November 9, 1871, and is now bookkeeper for the company.

Mr. Savidge built a fine residence at Spring Lake in 1871, and there his widow and children now reside. He was a member of the Masonic fraternity and of the Independent Order of Odd Fellows, building for the latter organization the Odd Fellows' block at Grand Haven. In politics he was a Democrat, and while tolerant of the views of those who disagreed with him in that respect, was an intelligent debater of his party's measures and principles. Mr. Savidge was married in 1857 to Miss Sarah C. Patten, daughter of Lyman W. Patten of Grand Rapids. She with her two sons and a daughter, now the wife of N. Robbins, Jr., of Grand Haven, survive to honor the memory of a good man and excellent citizen.

Charles E. Wyman.—Among those who have left their impress upon the lumber manufacturing industries of the west side of the state of Michigan, must be named Charles E. Wyman of Grand Haven. Mr. Wyman was born in Essex county, New York, in 1826, his father, John C. Wyman having for many years been a lumberman of that section before visiting Michigan in 1836, where he, in connection with the late Capt. Eber B. Ward, purchased a large tract of pine timber on the tributaries of the St. Clair river, in the days when pine lands were held by the government at $1.25 per acre. It does not appear that he ever permanently resided in Michigan; his death occurred at Essex, N. Y., in 1846.

Charles attended the schools of his native county, subsequently learning the trade of a steam engineer, and we first learn of him as engineer of the steamboat Ocean, one of the palatial steamers which plied between Buffalo and Detroit in the days before the railroads ruined the passenger traffic on the lakes. This fine steamer, which was one of the best of her day, was in 1862 dismantled, and converted into a tow barge, carrying cargoes of a half million feet of lumber between Port Austin and Buffalo, and was finally lost in a gale on Lake Huron. In 1854 Mr. Wyman became a resident of Northfield, Ohio, whence in 1856 he came to Michigan and settled in the township of Blendin, Ottawa county, where in connection with a Mr. Stores he formed the firm of Stores, Wyman & Co., and erected a saw mill, purchasing a large tract of land and operating from September 1856 until 1860, when Mr. Wyman sold his interest to his partner, Stores, and purchased the Kellogg mill at Georgetown, which he operated for two years and in 1859 sold to Freeman S. Farr and returned to Ohio. But he had had a taste of lumbering in the great pineries of Michigan, and in 1865 returned, and again locating at Grand Haven purchased, in connection with Henry W. Buswell the A. G. Throop mill which at this time was owned by William P. Ferry. This mill the firm of Wyman, Buswell & Co. operated for four years, when it was destroyed by fire. The firm at once proceeded to erect another and better mill on the Grand river, which they operated for about ten years, cutting timber from a large body of lands which they had secured on the Grand, Rouge and Flat rivers, and upon which they established their camps and cut from ten to twelve million feet of logs per winter. Their mill capacity being but ten millions, they in addition to their own mill cut, employed the services of other mills to a considerable extent. The firm of Wyman & Buswell operated until 1883 when Mr. Wyman sold out to his partner and became interested in the Chippewa Lumber Company of Chippewa Lake in Mecosta county, where, with a capital stock of $500,000 they built a large and thoroughly modern saw mill backed by about 8,000 acres of fine timber. Of this company Mr. Wyman was elected president, a position which he continued to hold until a cessation of the operation by reason of the exhaustion of their timber resources, which occurred in 1892. Since the latter date Mr. Wyman has retired from an active lumber business and has devoted his time largely to the management of his extensive farming interests, having a large farm in the renowned fruit district of western Michigan. During his experience as a lumberman Mr. Wyman has handled not less than 400,000,000 feet of logs and lumber, which has found market at Chicago and other points, ranking him among the largest operators of the State. During the progress of his lumbering, he has been his own civil engineer in the locating of camps, and the laying out and building of logging railroads, of which latter he is credited with having constructed the second logging road which was built in the State of Michigan. Mr. Wyman built his own roads, and to a large extent superintended his camps and logging operations, spending much of his time in the woods, estimating tracts for purchase, and locating desirable lands, as well as directing the practical work of his camps. One of his purchases was a tract of pine north of Ionia, where he established the village of Wyman on the then projected line of the Detroit, Lansing & Michigan railroad, where he erected a saw mill with one circular and utilized the timber on the tract by cutting it into lumber, of which it yielded about 400,000,000 feet. The town still bears the name of Wyman, and is a prosperous village. Mr. Wyman's enterprise has not been wholly confined to his lumbering operations in Michigan, he being interested in a body of excellent farming lands in Kentucky, which are underlaid with an excellent quality of coal. He has for about twenty-one years been a director in the National Bank of Grand Haven, and is interested in the Dake Engine Works of that city; he is also a director in the Corn Planter Company of Grand Haven.

Mr. Wyman was married in 1851 to Miss Harriet R. Reynolds of Northfield, Ohio, four sons being the issue. Mrs. Wyman died in 1895, beloved and respected by the vast number of friends who had learned to admire and to love the neighbor and friend of more than two decades. Of the sons the eldest, Harvey P., has charge of the saw mill at Pineville, Kentucky; Charles R. is a farmer, and George R. is interested in the Dake Engine Company of Grand Haven, of which company William P., the youngest son, is secretary; the two latter have for some years been interested in lumber operations in Michigan.

Mr. Wyman is a Republican in politics, but has never sought office. He is a man highly regarded in social and business circles, whose word has always been considered the equivalent of his bond; he has displayed a rare degree of acumen and foresight in the conduct of his business, and none have stood higher in public esteem. His long connection with the lumber trade entitles him to an honored place among the pioneers of the business, and an important factor in the practical development of the great State which has claimed his citizenship.

Delos A. Blodgett.—Few names have been more closely identified with the forestry industry of Michigan and the northwest than that of the subject of this sketch, Delos A. Blodgett of Grand Rapids; and indeed it may be said that his life history is the history of the State of Michigan and of its forestry development.

Mr. Blodgett was born March 3rd, 1825, in Otsego county, New York. His father, Abiel W. Blodgett was descended from a colonial family, which had settled in the colony of Massachusetts in 1638, removing later to Plymouth, New Hampshire, where Abiel D. was born, and whence while a young man he emigrated to New York State, where he married Miss Susan Richmond, and for many years followed the occupation of a farmer, and was numbered among the most useful and most highly respected members of the community. In 1846 he removed to Harvard, McHenry county, Illinois, where he died in 1861, at the age of sixty-seven years. His wife, who was a native of Massachusetts, survived him until 1867, when she too was gathered to her fathers at the age of sixty-nine years.

Of the five children of this estimable and useful couple, Delos A. was the youngest of the two sons. When he was but four years of age his parents removed to Erie county, New York, where the boy attended the district, and later, a select school, assisting his father in the work of the farm in harvest season and at other times. Just before attaining his majority, he persuaded his parents to permit him to take a journey with a friend through the south, and spent a year in visiting the States of Kentucky, Tennessee, Mississippi, Louisiana, Arkansas and Missouri, and obtained an appreciative knowledge of the extent and resources of a section which to a majority of the young men of the north was almost mythical in its wealth and natural surroundings, and the broadening of the scope of his vision through this experience, had doubtless much to do in shaping his subsequent business career.

Returning in 1847 to his father's home, which was now located at Harvard, Illinois, he for a winter attended a select school at Geneva, Wisconsin, and the following spring found him employed in a saw mill belonging to Read & McCay of Chicago, on Little Bay de Noque, at a point now known as Masonville. The season's work in the mill created a fascination for lumbering, which he resolved to make the business of his life. Going to Chicago in the fall, he found the west coast of Michigan to stand high among the lumbermen for the extent and quality of its timber resources, and decided upon Muskegon as a desirable place for carrying out his purposes, and in October, 1848, entered the employ of Henry Knickerbocker, a prominent logger upon the Muskegon river, and spent the winter in the logging camps of that gentleman, who continued to employ him at Muskegon after the breaking up of the camps in the spring of 1849, and placed him in charge, as foreman of his camps during the winter following and until in July 1850. Mr. Blodgett had meantime formed the acquaintance of Thomas D. Stimson, (for many years later a prominent figure in the lumber business of west Michigan, and later, with his sons, one of the most extensive operators on the Pacific coast, where he died in January 1898), and with a view to a partnership, the young men, with several others, took a trip into the then wilderness of the region of what is now Big Rapids, in search of a favorable location, upon which to establish camps in their own interest. The trip did not develop such location as they thought desirable, the timber of that section not being, in the main, of as high grade as was in that day thought necessary to answer the demands of the market, or possibly with but limited knowledge of the forest, they did not happen to discover the best of that region. The trip, however, did not discourage them, and securing the services of an expert woodsman and trapper named Parish, they returned to the woods, and located a tract of land in what is now Clair county, upon a stream, tributary to the Muskegon river, which soon after received the cognomen of "Doc. & Tom" creek, (from the partners who were generally known as "Doc" Blodgett and "Tom" Stimson. Building their camps, they operated as partners, with no articles of Association except the verbal word and the honor of each for the other, and the winter's operations amounted to 600,000 feet of logs, put into the river. The following winter the firm enlarged its operations, and established camps not only on Doc & Tom creek, but at various points on the main river, Mr. Blodgett taking charge of those on the Hersey branch, Mr. Stimson looking after those at other points.

In 1851 Mr. Blodgett, being convinced that the general estimate of the worthlessness of northern Michigan lands for farming purposes was a mistake, commenced the clearing of a farm at what later became the thriving village of Hersey, in Osceola county, and put in the first crop (potatoes) and made the first actual settlement in that wilderness county, demonstrating not only that the climate was not too rigorous, nor the land too light, but that Osceola county was one of the richest agricultural sections of the State. Mr. Blodgett is still the owner of so much of the farm as is not occupied by the village of Hersey, the county town of Osceola county. His faith in the fertility of the soil was further evidenced by the development of a farm of four hundred acres in Clare county, and one of seven hundred acres in Missaukee county, on each of which he has demonstrated that crops of a diversified character can efficiently and profitably be produced. On these farms he has been extensively engaged in raising French draft horses, the Norman Percheron predominating. It may here be not inappropriate to state, that in the logging operations of the past thirty years, horses of the larger and more muscular breeds, have entirely superseded the cattle which were used almost exclusively in former years, and that teams valued at from $500 to $700 are and have been, no rarity in the lumber woods. In 1854, the partnership with Mr. Stimson was terminated, and Mr. Blodgett continued his logging operations, and as his means increased, he gradually extended his purchases of timber lands, and increased his winter's output of logs. In 1858 he erected a saw and grist mill at Hersey, at which point his first manufacturing was done; this mill he subsequently torn down, and as the rapidly developing country now warranted, he erected a large grist mill, costing $8,000, for the accommodation of a rapidly increasing population.

In 1871 Mr. Thomas Byrne, who had been for some years in Mr. Blodgett's employ, was taken into partnership, and the firm of Blodgett & Byrne engaged in the purchase of pine lands, logging, and the manufacture of lumber, their joint operations being wholly disassociated with the operations carried on by Mr. Blodgett personally. For several years they had no saw mill, their logs being manufactured at various mills, until in 1880, the firm purchased the mill property of Watson & Hull, formerly known as the George R. Roberts & Co. mill, on Muskegon lake, between Fifth and Sixth streets, Muskegon. This mill, at the time of its purchase by Blodgett & Byrne, had a capacity of 125,000 feet per day, which was increased by them to 200,000 feet daily. In December 1881 Mr. Byrne died, but the partnership interest was continued for several years, and until by the judicious management of Mr. Blodgett, the heirs of Mr. Byrne have realized over one million dollars from his interest in the operations which were in progress at the time of his death. In 1878 Mr. Blodgett purchased a half interest in the mill of George J. Tillottson at Lakeside, on Muskegon lake, and the firm of Tillottson & Blodgett operated it for six years, sawing logs supplied by D. A. Blodgett, when Tillottson, selling his interest, the mill continued to operate under the management of Mr. Blodgett's son, John W. Blodgett, until in 1885, when it was torn down, and a modern saw mill embracing all the later machinery for the economical manufacture of lumber, (and which was considered the best mill on Muskegon lake) was erected, and continued under the management of John W. Blodgett, into whose hands the active management of the business of Blodgett & Byrne, and that of D. A. Blodgett, had for several years been centered. The yearly output of the two mills thus mentioned was about 60,000,000 feet, presenting quite a contrast with the six hundred thousand feet of logs which constituted the business of Blodgett & Stimson in 1850-1. In the woods, and mills, operated by Mr. Blodgett in his various connections, over six hundred men have found yearly employment.

Soon after laying out the village of Hersey, Mr. Blodgett sold a part interest in the village plat to Mr. Kennedy, who was one of the earliest settlers, and the first to engage in store keeping. On the building of the Flint & Pere Marquette railroad, Messrs. Blodgett and Kennedy founded the town of Evart, in Osceola county, which was incorporated as a village in 1871, and about the same time they founded the town of Baldwin, which became the county seat of Lake county. In 1881 Mr. Blodgett purchased a residence property at Grand Rapids, to which he removed, having previously resided on his farm in Osceola county.

While the interests of Mr. Blodgett personally, and those of the firm of Blodgett & Byrne in Michigan have been very extensive, Mr. Blodgett has acquired about two hundred and fifty thousand acres of the valuable yellow pine lands of southern and eastern Mississippi, which since their purchase in 1885, have greatly increased in value, with the increasing demand for and manufacture of that valuable supplement to the fast vanishing pine forest of the north.

In February, 1882 he became interested in the Fourth National bank of Grand Rapids, of which he was elected president in 1888. He also founded a private bank at Cadillac in December, 1883, under the name of D. A. Blodgett & Co. He is a stockholder in the Lumberman's National Bank of Muskegon, and of the Muskegon Savings bank, and has been a stockholder in the Preston National Bank of Detroit since its organization. He was one of the incorporators of the Grand Rapids Fire Insurance Co., organized in 1882, with a capital of $200,000, and is a member of its board of directors; he has been a stockholder and director in the Standard Accident & Life Insurance Co. of Detroit since its organization in June, 1884, and is vice-president and director of the Kent County Savings Bank of Grand Rapids.

He is the owner of several of the largest and finest business blocks in Grand Rapids, and has large interests in real estate in various portions of the city, and is largely interested in many of its more public institutions. He has long been warmly interested in the Osceola county agricultural society, which held its first fair in 1875, and was one of the organizers in 1880 of the West Michigan agricultural and horticultural society, and was for four years a member of the executive committee of the State agricultural society. He has been a Republican from the first organization of that party, and was a delegate from the Ninth Congressional district to the national Republican convention, which in 1880 nominated James A. Garfield for president, and in 1892 was delegate-at-large to the national convention at Minneapolis. In 1888 he was elected chairman of the Fifth district Congressional committee, the fruits of his selection being shown in a Republican plurality of 2,700 votes in a district which but two years before had returned a Democrat, a change of conditions in no small degree due to Mr. Blodgett's personal efforts and influence.

He was married September 9, 1859 to Miss Jennie S. Wood of Woodstock, Illinois, daughter of John Wood, Esq., a native of Juniata county, Pennsylvania (where Mrs. Blodgett was born). They had two children, John W. of whom mention has been made in this sketch, and Susan R., wife of Edward Lowe esq., of Grand Rapids. Mrs. Blodgett was taken from the bosom of her loving family October 22, 1890, and was tenderly laid in beautiful Valley City cemetery. June 3, 1893, Mr. Blodgett was united to Miss Daisy A. Peck of Atlanta, Georgia, daughter of Prof. Wm. Harvey Peck of that city. They have one child, a daughter.

In religious sentiment Mr. Blodgett is an agnostic with atheistical tendencies, but in his gentle life has shown an example to the believer in what is termed orthodoxy in exemplifying those principles of truth, of love to the neighbor, of endeavor to cultivate and inculcate the right, in honesty of dealing, in rejoicing in that which is good and while pitying those who do evil, forgiving so far as is possible the wrongdoer, pitying and helping mankind to a high appreciation of that which promotes happiness and dispels evil. A friend of strictly orthodox belief once said to the writer: "If all Christian professors lived up to the golden rule as closely as my friend Blodgett, they need feel no shame in an agnosticism which leads to such results in a well ordered life of uprightness and well doing to the fellow man."

The record of Mr. Blodgett's life is one which may well be commended as worthy of the imitation of the young men of a coming generation. Enterprise, push, honesty of purpose and an aim; not looking upon labor with the hands as beneath the dignity of an aspiring youth, but finding in honest labor the ladder which leads to prosperity, his ample fortune, his unblemished reputation, and the confidence and esteem of his fellow citizens, all combine to prove his life to have been one worthy of emulation.

John W. Blodgett.—John W., son of Delos A. Blodgett, was in 1860 born near where the village of Hersey, Osceola county now stands, and which at the time of his birth was being redeemed from the midst of a dense wilderness by his father, who had located it as a farm and timber lot in 1851, and which in 1860 had gathered into the neighborhood a considerable population, engaged in lumbering and farming pursuits. John attended the district school which was established with the increasing population, and later when the village was organized, the higher schools which were then established within and as a part of the corporation. From eleven years of age until sixteen he attended first a boarding school at Woodstock, Illinois and subsequently a military academy at Worcester, Massachusetts, where he laid the ground work of the business education which developed his usefulness, when at the age of sixteen he in 1876 left school and entered the office of D. A. Blodgett at Muskegon, where he soon mastered the practical details of the saw mill business and soon after became business manager of the firm of Blodgett & Byrne and of Tillottson & Blodgett, his father having purchased a half interest in the Tillottson mill in 1878. This mill was rebuilt in 1885 to the most modern condition as yet reached by the saw mill world, and the subject of our sketch continued the general management, until in 1892 he was admitted to a partnership with his father. Mr. Blodgett has practically had the management of his father's vast interests since 1878, including the responsibilities attaching to the general oversight of the land and logging, the sawing, and disposition of an average of sixty million feet of lumber annually, and the success which has attended his management attests its practical and judicious character. He was married January 16th, 1895, to Miss Minnie A. Cumnock of Lowell, Massachusetts. As the worthy successor of his esteemed father, John W. Blodgett is esteemed in the community in which he dwells not more for his business success, probity and honor, than for those social qualities which mark the good and useful citizen.

Thomas Byrne of Blodgett & Byrne, Grand Rapids, was born in the village of Trenton, on the River Trent, near Bellville, Ontario, Canada, on the 17th day of January, 1837. He was about one and half years of age when his father first moved to Michigan and settled in Sylvan, Washtenaw county, where he resided for about five years. He then moved with his parents to Grattan, Kent county, Michigan, (1844,) where he worked on his father's farm in summer, and went to school during winters, until the age of sixteen, when he went to the woods to work in Mecosta county, for Jerry Ryan, working winters for him and running threshing machines during the summers and falls until 1861. He also worked for a short time below Steel's Landing on Grand river, when he was eighteen years old. In 1861 he went to work as a foreman for D. A. Blodgett, afterwards his partner. In the winter of 1865, he, together with his brother John Byrne, took a job of putting in logs by the thousand feet in the Muskegon river for D. A. Blodgett, for one year only. This was really Mr. Byrne's start in life. With the proceeds of this job Mr. Byrne bought land and went to lumbering for himself. He was very successful in this undertaking and the second winter ran several large camps and did extremely well. During the same period he, together with Mr. Blodgett, took a large job of R. P. Easton, agent, of Muskegon, for putting logs in the Muskegon river. They were also very successful in this undertaking. In 1870 Blodgett & Byrne bought of John R. Robinson the tract of pine land in the township of Houghton containing about 3,500 acres, and platted the village of Houghton, where they built a saw mill and commenced the manufacture of pine on the tract, which was marketed by rail. In 1876 the mill was burned down, but was promptly rebuilt and continued in active operation till 1881, at which time all the timber on the original purchase, as well as a later purchase from Staples & Covell, was cut up. In the meantime Blodgett & Byrne had made some purchases of pine land in the northern part of the state, and began operations on a large scale, having their headquarters for a number of years at Roscommon on the Jackson, Lansing & Saginaw railroad, (now the Michigan Central,) where they conducted a large supply store both for themselves and the public. Subsequently they moved their headquarters to Grayling near the upper end of the railroad, at first selling their logs which were run down the river to Muskegon, to mill owners at that place. Later they had them cut by the thousand, but not finding this entirely satisfactory in 1880 they bought of Hall & Watson their plant at Muskegon, including saw mill, docks, large offices, etc. They remodeled the mill and equipped it with the latest improved machinery, making it one of the best mills on the lake with an average capacity of 200,000 feet per ten hours' run. Having now a mill of their own with every convenience for doing a large business Mr. Byrne who gave almost his entire attention to the woods part of the business, began looking around for more pine lands, and from time to time made some very desirable purchases, the latest and largest being all the lands owned by the Jackson, Lansing & Saginaw railroad Company, in the counties of Roscommon, Missaukee and Crawford. This tract was estimated to cut 200,000,000 feet. As these lands were too far from the river to be hauled by teams, a narrow gauge railroad was built, commencing near the source of the Muskegon river being extended from year to year until it reached nearly thirty miles, and proved a very successful and economical way of logging. The lumber was nearly all marketed in Chicago where it was sent by water, the principal customer being the S. K. Martin Lumber Company, who each year took a good portion of their cut, some years taking the entire cut of 40,000,000 feet. The mill was operated until 1891, at which time the timber belonging to Blodgett & Byrne was exhausted. Mr. Byrne was also associated in several other lumbering companies and enterprises among which we may name. Thomas Byrne & Company: the firm consisting of Thomas Byrne, James Barnett and Harvey J. Hollister. This company bought lands of Joseph L. Parker in Mecosta and Osceola counties and operated for about three years, having the logs sawed by the thousand, in Muskegon. The firm of John Murry & Company

Thomas Byrne

consisted of John Murry, Thomas Byrne and James Barnett, and commenced operations June 1, 1878. They bought large tracts of land in Roscommon and Crawford counties from the Jackson, Lansing & Saginaw railroad and operated until 1891. At first the logs were cut by the thousand in Muskegon until after the death of Mr. Byrne when Mr. Murry and Mr. Barnett bought a half interest in the Wilson mill at Muskegon, where the remainder of the timber was cut. Their cut aggregated about 125,000,000 feet.

Thomas Byrne married Catharine Brady of Fingal, Ontario, May 2, 1864. They had five children of whom only two survive. The oldest, Eva Byrne Hull and John T. Byrne, are both married. Thomas Byrne died at the age of 45, January 6, 1882.

Daniel H. Waters.—Among the thousands of men who during the past half century have delved in the forests of the great northwest, the proportion of those who have used the fortunes thus acquired in advancing the interests of their fellow citizens, in public bequests for beautifying the city of their residence, for alleviating distress, and in strengthening those institutions which seek to care for the unfortunate or homeless, compares more than favorably with the numbers similarly inclined in other walks of life. There was something, broad, generous and ennobling in the vast forests of the land, which had no small influence in rounding out the nature and broadening the conceptions, and perceptions of all who were engaged in their destruction or in the manipulation of their products. Lumbermen and those whose life work has had much to do with the forests and their products, are proverbial for energy, good citizenship and enlarged ideas as to their duty and responsibility in the care of the wealth with which their life's efforts have been blessed, and such a man as is included in this description was Daniel H. Waters of Grand Rapids, Michigan. Mr. Waters was the son of Asa and Anna (Dudley) Waters, residents of West Falls, Erie county, New York, where Daniel was born December 29th, 1834. His father was a farmer, well to do, and held in high esteem in the community where he was best known. His son was given the advantages of a common school education supplemented by a course at the Academy at Aurora, a few miles distant from his home. During his early life he assisted his father in the work of the farm, and his earliest business venture was in dealing in farm products. He also ran a saw mill which was mainly confined in its manufacture to the hemlock and hardwood timber which abounded in that neighborhood, and for which market was found at Buffalo whither it was hauled by team. At the age of twenty-two years, he, in 1856, turned his face westward, and settling at Grand Rapids, he employed his limited capital in several successful enterprises. He had already had a taste of the lumber business, of which it is said "no man who has once been engaged in it, is content in any other," and it was but natural that he should partake of the optimistic views which at this period were developing the lumber interests of the State, and enter into the manufacture of lumber and as well of wooden ware, the timber of suitable size for this latter being neglected by the average lumberman who sought a larger class of trees, and was purchasable at an exceedingly low price, while for the manufacture of wooden ware it possessed a value which Mr. Waters was not slow to discern. With increasing prosperity he extended his operations by larger investments in pine lands, and was accounted a most successful operator. His dealings included many large tracts in Wexford, Newaygo, Mason, Lake, Kent, and other counties of Michigan. He was withal, of an inventive turn of mind, and while recognizing value in timber lands neglected by others, because of its small size trees, he invented machinery for its economical utilization, many of the most acceptable machines for the manufacture of bent ware, and kindred articles, being the product of his ingenious brain. His machines for the preparation and manufacture of measures, salt boxes, grease and bail boxes, and the bent case for covering oil cans, revolutionized the manufacture and trade in these articles. In 1869 he organized the Michigan Barrel Company, with a capital of $300,000 to handle his devices. Of this company he was elected president and general manager, and so efficient was his management that the stock paid cash dividends as high as 37 per cent. per annum upon its capitalization. Mr. Waters continued in the active management of this company until 1882, being at the same time interested in the manufacture of furniture and in other enterprises of a kindred nature which have done so much to give the city of Grand Rapids a world wide reputation. Subsequent to 1884 his attention was directed more especially to the purchase and sale of timber lands, and his acuteness and good judgment was attested in many profitable transactions.

Mr. Waters was not alone interested in enterprises directly connected with timber lands and lumber. He was a director in the old National Bank of Grand Rapids, and one of the organizers, and a director in the Grand Rapids National Bank and the Michigan Trust Co., he assisted in the organization of the People's Savings Bank, and was one of the founders of the Peninsula club. In politics Mr. Waters was a Jeffersonian Democrat, but had little taste for public or political life. He was a man of liberal views, demanding only that men's actions in political, social or business life should be moulded by a wise and conscientious conviction of duty and right, and it is needless to say of a man who was thus minded himself, that his word was as good as his bond, and his opinions upon all subjects were held in high esteem among his fellow citizens. Mr. Waters was modest and retiring in manner, and withal was a man of most charitable impulse, the details of which were known in most cases, only to his Maker and the recipient of his bounties, which were always judiciously bestowed.

In his family relations Mr. Waters was most happy. He was married December 27th, 1859, to Miss Mary Leffingwell of Grand Rapids, three children being the fruit of the happy union, the eldest being a son, Dudley E. who to a large extent inherits his father's business qualifications, no less than his sterling virtues, and upon whose shoulders the father's mantle most worthily falls. Of the daughters, one is Mrs. Morris Cassard of Chicago, the younger, Miss

Mabel remaining the solace of the mother's heart and home.

Mr. Waters died March 17th, 1894, at Green Cove Springs, Florida, whither he had gone during the previous month seeking recuperation for health which had become shattered, but not to an extent which raised serious apprehensions in the minds of his friends, who had hoped for a speedy recovery in the balmy air of the south. But a higher power had decreed that the useful life had accomplished its full purpose and the devoted wife and son were in February summoned to the sufferer's bedside, but the physician's skill and the love of his dear ones were unavailing, and on March 17th, the spirit took its flight to realms beyond. The remains were taken to Grand Rapids, where amid the tears of a mourning community, the flower laden casket with its precious contents were consigned to the tomb in beautiful Valley City cemetery.

Dudley E. Waters only son of Daniel H. Waters of Grand Rapids, was born in that city November 27th, 1862. On attaining his majority, he began a business career as a clerk with his father, and in 1885 was placed in control and assumed the management of the business. In 1891 he was made a partner by the organization of the firm of D. H. Waters & Son, and on the death of the father the firm name was perpetuated as D. H. Waters Son & Co.

Mr. Waters was married January 14th, 1892, to Miss Florence Hills of Georgia, and with their little daughter they reside with the widowed mother and loved sister at the old homestead. He is a director in the People's Savings Bank; The Grand Rapids National Bank, the Michigan Trust Company and the Michigan Trust Company building. He is by appointment a member of the City Board of Public Works. Like his honored father he is a Democrat. He is recognized as having inherited the good business traits of his father, and having spent much time in the woods in the examination of timber lands, he is thoroughly equipped to continue this branch of the extensive business established by his father.

White & Friant.—Few names have been more familiar to the lumbermen of the northwest for a half century, than those of Thomas W. White & Co. of Grand Haven, T. Stewart White, White & Friant, White Friant & Co., and the White & Friant Lumber Company, and in intimate connection therewith, the firms of White & Avery, Robinson Lettellier & Co., Lettellier & White and other combinations including the names and influence of Thomas Stewart White and Thomas Friant, except in the first mentioned name, that of Thomas W. White, who was the father of T. Stewart White and one of the pioneers of Michigan and of its earliest lumber business, and to whom the son became a most worthy successor, and while it is of the son that this sketch is designed to treat it is eminently proper that it should be preceded by a few words regarding the honored sire, whose name and influence are forever inseparable from the history of Western Michigan and its lumber development.

Capt. Thomas W. White was born at Ashfield, state of Massachusetts, November 16th, 1805. Of his early history we know but little, except that he enjoyed the advantages of a common school education and learned the blacksmith's trade, and in 1836 was married to Caroline Norton, daughter of Job Norton of St. Alban, Vermont; in 1836 he turned his face westward and after traversing the swamps through which scarce more than an Indian trail marked the pathway from Detroit to Lake Michigan, he arrived at the mouth of Grand river where later arose the thriving and prosperous city of Grand Haven, and here decided to make the home which was the dream and amibition of his life. Later he became associated with Nathan H. White in the firm of T. W. White & Co., who undertook what was at that day a comparatively hazardous although limited business, in the handling of logs and lumber for which a demand was but just developing. Mr. White was a brother-in-law of W. M. Ferry, who about this time erected a saw mill at Spring Lake (and in 1850 at Pentwater) the blacksmith work for which and as well for the mill of Butts & Hathaway in 1837 and that of John E. Throop in 1855 was the handiwork of Mr. White. The Butts & Hathaway mill (the first at Grand Haven) was erected on the ground now occupied by the depot of the Detroit Grand Haven & Milwaukee road, and was rebuilt by Mr. Throop and others as the developments of the lumber business demanded greater facilities than were afforded by the original mill and its mulay saw. While the business of the earlier years was but small, Mr. White continued and grew up with it assisting in its development until in 1865 he removed to Grand Rapids where he purchased the Stevens mill, which he operated for some years in connection with his son T. Stewart White, until 1881 when in consequence of his age and infirmities he retired from active business leaving his mantle to fall upon the able shoulders of his son. He died January 4th, 1884, at the ripe age of 78 years respected and beloved by his life long neighbors and friends. He was for many years an adherent of the old Whig party, and in 1844 was elected to the State Legislature, where he was influential in securing a grant of public lands for the erection of the first bridge which spanned the Grand river, that at Bridge street, Grand Rapids. On the formation of the Republican party he espoused its principles and maintained them until his death. Few of the older settlers and pioneers of the state, proved themselves more useful as citizens, and none were held in higher esteem.

T. Stewart White was born June 28th, 1840, at Grand Haven and received the advantages offered by the public schools of that day, in many respects more practical in fitting a boy for the battle of life, than many of the schools of the present day. It had been the aim of young White to obtain a college education but when at the age of seventeen the panic of 1857 threw the business world into convulsions, he found that it was necessary for him to get out into the world and "hustle," in the development of brawn and muscle as well as brain, and he established a ferry across the river to accommodate the travel which had now become considerable between the two banks. There were those, however, who saw in the young man a something which fitted him for a higher call- than that of a ferryman, and ere many months he was offered a position in the office of the county clerk and registrar, and two years later having attained the age of nineteen, he became bookkeeper for the bank which at this time had been established by W. M. Ferry & Son at Grand Haven, and soon after was promoted to the position of cashier, which he held for the succeeding three years, earning for himself an enviable reputation not only as to business abilities, but as the best mathematician in the city. In 1862 being now twenty-two years of age, he responded to his country's call for troops and enlisted in the 14th Michigan volunteers under command of Col. Wm. M. Ferry and was assigned to duty as adjutant or clerk to his commanding officer. He remained in the service until after the battle of Corinth, when he returned home and for a time was interested in a market at Grand Haven, but in 1863 entered the employ of Gray, Phelps & Co., Chicago as receiving and shipping clerk, here as previously receiving the commendations of his employers for efficiency and reliability. The year following, however, found him at his place as cashier of the Ferry & Sons Bank, one year in which demonstrated the necessity for more active out of doors employ, and he in 1866 removed to Grand Rapids but returned to Grand Haven in 1867 and entered into partnership with Heber Squires, the firm entering upon a general lake contracting business, with tugs, barges, pile drivers and other wrecking and harbor improvement paraphanalia, and for the next ten years was prepared to undertake all of such work together with lake contracting as presented itself. During this period Mr. Thomas Friant became connected with them and the firm name of White & Friant was then established and has since been a power in the lumber world. In 1868 Mr. White became associated with John M. Avery, and the firm of White & Avery entered upon a general lumber business. This firm was succeeded by Robinson, Lettellier & Co. and Lettellier & White, later becoming White, Friant & Lettellier, continuing up to 1892 in a general planing mill and lumber business. The partnership formed in 1869 with Thomas Friant was in its origin designed to take charge as contractors, of the rafting of the logs which by this time were being needed by the mills at Grand Haven and Spring Lake, and as well at Grand Rapids, and for the next twenty years the firm boomed, sorted and delivered at the various mills on the river all the logs which each winter's work in the woods had provided as a supply, the grand aggregate of the twenty years summing up the enormous total of 737,956,543 feet for the mills at Grand Rapids, and 2, 040,040,524 feet for the mills at the mouth of the river, a grand total of 2,777,997,067 feet of logs recorded as being the rafted product of the forests tributary to the Grand river. We may safely add several per cent to these figures for lumber manufactured at mills above the rafting waters and not included in boom scale.

In 1877 the firm of White, Friant & Co was formed by connection with John Rugee of Milwaukee for the prosecution of a general lumber business, and this company was in 1885 incorporated as the White & Friant Lumber Co. with capital of $250,000. T. Stewart White, president; John C. Rugee, vice-president, and Thomas Friant, secretary and treasurer. This company has been and still is recognized as one of the most extensive, energetic and progressive among the many large operators in the lumber trade of the Northwest, having large landed interests in Michigan, Wisconsin and Minnesota, with large bodies of sugar pine lands in Fresno county, California, and cypress lands in Louisiana, Florida and South Carolina which are held as investments. The company operated saw mills at Spring Lake for many years and also at Manistee and Menominee, Michigan, with a yearly production of about 50,000,000 feet of lumber.

While it would seem that the varied and extensive interests already enumerated were ample in themselves to absorb every minute of Mr. White's time and energies, he still finds time to attend to the duties of a director in the City National Bank, and Michigan Trust Company, of Grand Rapids, being also a director in the Grand Rapids Fire Insurance Company, of which he for a time was the president. He is also president of the Monitor Vapor Engine Company of Grand Rapids, manufacturers of Marine Engines, and is interested in the Michigan Vapor Stove Company, and in the Sweeperette Company and a director in the Grand Rapids Packing & Provision Company. He is a Republican in his political affiliations, an attendant of the Congregational Church, and socially a member of the Peninsula Club. Few men enjoy to an equal extent the confidence and respect of their fellows, or stand higher in the business world, and few have contributed more largely to the forestry development of western Michigan. April 20th, 1870, Mr. White married Mary E. Daniell of Milwaukee, and as a result of the union has five sons. Stewart E., Thos. G., Norton Rugee, Rhoderick I. and Harwood A. The family reside in a pleasant home at (No. 2) Waverly Place, Grand Rapids.

Thomas Friant.—Thomas Friant of White & Friant, whose life's history is inseparably connected with that of T. Stewart White, with whom he has been connected in business for a quarter of a century, was born in Kent county, Michigan, February 22d, 1840. His parents were among the pioneers who settled in Michigan when it held the unsavory reputation of a state filled with swamps, rattlesnakes, deadly miasms and peopled with Indians. It is difficult at this day when Michigan stands a peer among its sister states, for health, fertility populous cities, well tilled farms and intelligent citizenship, to realize the courage which was demanded of the early pioneer in facing the hardships which a removal to such a new and unknown country demanded. Well may it be said "there were heroes in those days." While it is of the son rather than the parent who is represented by this sketch, it is highly proper that more extended notice be given to the progenitor, inasmuch as the case is one in which we may trace the influence of heredity beyond an ordinary extent and find the personality of the father reproduced in the son. Cornelius, father of Thomas Friant was a native of Genesee county, New York, where he was born in 1805. He was married in 1825 to Miss Huldah Hatch and in 1837 the young couple, although never yet had the lamented Greeley's advice "Go west young man" electrified the nation, determined to carve out for themselves a home in the almost unknown wilderness of Michigan. Slowly threading their way through the swamps and over what was scarcely more than an Indian trail, they reached the waters of Grand river at a point near where now stands the thriving city of Portland, Ionia county, and building a raft, the none too plentiful household goods were loaded on it and the descent of the river, and into an unknown country was undertaken. Mr. Friant was deeply impressed with the extent and character of the vast pine forests through which he day by day floated along, and on reaching the Baptist Mission then located on the present site of the city of Grand Rapids, he decided to stop his wanderings and to settle on what appeared to him as desirable a location as he was likely to meet, and here he swung his axe and laid low the timber which covered the present site of the city. In 1845 he built a saw mill on the Rouge river seven miles up the river, from Grand Rapids, using the water power to run his mulay saw, and the (then just coming into popularity) "siding machine," the first in Kent county. His operations were for many years upon the small scale commensurate with the demands of the day, purchasing small lots of timber which he cut into lumber and rafted to Grand Haven for a market, or for shipment to Chicago, increasing the volume of his trade with the increasing demands of the country, and becoming one of the leading lumbermen of the section and the day. He erected a mill at Plainfield in Kent county, and another at Gibralter, these mills being of capacity to produce about 5,000 feet per day, which was the average capacity of the mills of that early period. For many years he aimed to get out about one million feet of logs, which until a later period in which saw mills were modernized to greater capacity, was sufficient for his seasons cut of lumber. He continued in the lumber trade until 1863 when he retired from active business. He died in 1887, highly respected by all who knew him as a citizen or man of business.

With such a father and surrounded by influences tending to develop his utmost energies and noblest impulses, it is little wonder that Thomas Friant at an early age espoused his father's occupation, and has made a successful lumberman. Born as before stated, February 22d, 1840, he attended the district school and worked upon his father's farm, and at the age of sixteen he was sufficiently proficient to be the teacher of the school in his township. In 1858 being now eighteen years of age he entered the employ of Hopkins & Friant and soon after was employed by Galen Eastman of Grand Haven to look after his business at that point and on the east shore of Lake Michigan. From 1862 to 1867 he engaged in a general drug and merchandise business at Plainfield, and held several important offices, being elected as town clerk and as a justice of the peace. In 1869 he was in the employ of Nelson Comstock & Company, lumbermen of Grand Rapids, and kept the books of the firm of Comstock & Watrous. During the same year he became a member of the firm of Squiers & White, and entered into contract with the Ottawa County Boom Company, organized in that year, to run, boom, raft and deliver through the booms of that company, all the logs on Grand river destined for the mills at Grand Haven, Spring Lake, and as well at Grand Rapids, and for the next twenty years was the practical man in charge of this branch of the business of the various firms of which White & Friant were the leading spirits, that firm having been organized in 1873 and continuing the rafting business until 1890, when log running practically ceased upon the river. During this period no less a quantity than 737,956,543 feet of logs were delivered to the mills at Grand Rapids. Since 1873 Mr. Friant has been engaged in connection with T. Stewart White, and the firms of White & Friant, White Friant & Co., White & Friant Lumber Company, which with other business designations making various combinations in which the partners were jointly interested, has made their name as a household word among lumber circles of the west. Mr. Friant has had wide experience as a logger and river driver, as a manufacturer at Spring Lake, Manistee, Menominee and other points, and to his practical good sense and judicious management is in no small degree due the success and prosperity which has attended the members of the firm in their business ventures.

Mr. Friant is a director in the State Bank of Grand Rapids, president of the Champion Register Company, and of the Michigan Vapor Stove Company, also of the Grand Rapids Packing & Provision Company.

He is in politics a Republican; is a mason of the 32d degree, a member of De Molai Commandery, K. T. and also of Saladin Temple N. M. S. of Grand Rapids. He is also a member of the Knights of Pythias and of several shooting clubs. He is an attendant of the Episcopal Church, and resides at 481 Cherry street, Grand Rapids. Mr. Friant holds a deservedly high place in the esteem of the community in which his life's work has been conducted.

E. Crofton Fox.—The firm of Osterhout, Fox & Co. and the incorporated Osterhout & Fox Lumber Co. of Grand Rapids, Michigan, has for many years been recognized as one of the leading houses in the lumber business of the state. The present company was organized by incorporation in 1881, having for its object the manufacture and sale of lumber, logs, shingles, timber lands, etc. Soon after the company's incorporation a double circular mill with capacity of 100,000 feet per day was erected at Deer lake, in Lake county, and mills were also established at Raignel and at Hall's station, on the Grand Rapids & Indiana railroad, each of the latter having a capacity for cutting 35,000 feet of lumber per day, the company having acquired large tracts of the finest pine lands to be found in that county, embracing several thousand acres, from which between 1882 and 1893 they removed more than 300,000,000 feet of timber, which found market entirely by rail to Indiana, Ohio, Pennsylvania, Kentucky, West Virginia, New York, New Jersey and the eastern states, in common with the nearer markets of Michigan and Indiana. While the general character of the timber was of high grade, the company has made a specialty of long timber up to sixty feet, for bridge building, ship decking, etc., and its operations have been attended with eminent success from a business standpoint.

E. Crofton Fox, president of the company, is a native of Michigan, having been born at Grosse Isle, Wayne county, June 18, 1852. He was the son of the Rev. Charles Fox, an Episcopal clergyman of English birth, who became quite noted as a scientist in the branch of geology, and as a lecturer upon agriculture in the State university of Michigan before the establishment of the Agricultural college. He died in 1854, much respected by all who had been brought in contact with him socially or otherwise. His wife, mother of E. Crofton, was Anna M., daughter of John P. Rucker, a native of New Jersey. An uncle, as we have good reason to believe, was one of the owners of the saw mill elsewhere mentioned in this history as having been erected on Grosse Isle in 1795, the uncles of Mrs. Fox, Henry and William Macomb, having purchased the entire island from the Pottawattamie Indians July 6, 1776, and the deed, still among the family treasures, certifies that the Indian characters or sign manual, are made during the reign of King George III. Mrs. Fox was born at Newark, New Jersey, in 1816, and still survives, residing with her sons at 413 Cherry street, Grand Rapids. When but three years old, she accompanied her parents to the west, the journey being by the Erie canal to Buffalo, thence to Detroit on the "Walk on the Water," the first steamboat on the lakes, whose route extended only to Mackinaw, there being at that time no Chicago or other considerable settlement on Lake Michigan. Mrs. Fox is a sister of Gen. H. D. Rucker, now retired late quarter-master-general of the United States army, and Col. Wm. A. Rucker, who died in Chicago, 1894.

E. Crofton Fox was one of six sons, of whom Dr. George Fox died in Vienna, Austria, while taking a post-graduate course in physics. William H., attorney at law, Detroit, died in 1888. E. Crofton and Charles of Grand Rapids are the only survivors. The subject of our sketch was raised on the farm at Grosse Isle, attending school at Detroit and left the State university in 1873, soon after which he was admitted to partnership with Willard Barnhart and Smith W. Osterhout, and the firm of Barnhart, Osterhout & Fox was established for the purchase, manufacture and sale of lumber, with headquarters at Grand Rapids. In 1875 they purchased a tract of timber near Fife lake and about that time Mr. Barnhart sold his interest to his partners, Osterhout and E. Crofton Fox, who soon after sold it to Charles Fox, then operating a saw mill at Fife Lake, and the firm began the accumulation of those large bodies of land which constituted their holdings when in 1882 the present company was formed, when the Grand Rapids & Indiana railroad having completed a branch to Deer Lake, the company erected a large mill at that point and supplied it with stock by means of a logging railroad constructed through their extensive tract of timber. As an indication of the character of the timber, it may be mentioned that one section of the land yielded 23,800,000 feet of saw logs or an average of about 37,500 feet per acre, which is largely above the average yield of the timber lands of the state. The company was at one time the most extensive shingle manufacturer in the state. In his connection with the lumber trade Mr. Fox has been interested in the moving of fully 500,000,000 feet of lumber, timber and shingles.

In 1875 Mr. Fox began estimating lands in the Upper Peninsula, where he located about 20,000 acres, and was considered among the most accomplished experts in his judgment of the character and value of timber lands. The land accumulations of the company were from his personal selections, he being imbued with the idea that investments of this nature should be made upon the sound business principle of personal examination, the same as the purchase of any other property, and being fully equipped mentally, physically and practically for the task, his selections could not fail to prove profitable to himself and those connected with him.

In 1887-8 he located lands in Jones and Perry counties, Mississippi, and the same years located a large body in the same state for a Grand Rapids syndicate. He has looked and located lands in Minnesota, Wisconsin and Canada, as well as in Mississippi, Texas, Louisiana, Alabama, Georgia, North and South Carolina and Virginia, and is well acquainted with the timber resources of those sections.

In politics Mr. Fox is a Republican, and for several years was chairman of the Kent County Republican committee, and during the two-term incumbency of Gov. Luce he was president of the State Military board, with the rank of colonel. He was postmaster at Fife Lake during the term of Gen. Grant. He is a member of the Chi Psi society of the University of Michigan, and of the Peninsula and Detroit clubs. He is a member of Valley City Lodge No. 186, F. & A. M.; Grand Rapids Chapter No. 7, R. A. M., and De Molai Commandery No. 5, K. T., and also of De Witt Clinton Consistory, 32d degree, all at Grand Rapids, and in 1895 erected a large building on Ionia street, Grand Rapids, for the accommodation of these bodies, which vies in practical adaptation for the various uses for which it is arranged and for elegance of finish with any Masonic temple in the land. He is also a member of the Knights of Pythias of Grand Rapids. He is vice-president of the Nelson & Matter Furniture company, one of the most extensive of the many extensive manufacturing concerns of the city, and a director in the Old National Bank, and also of the Kent County Savings Bank. He has never married, but is recognized as one of the most public spirited and useful citizens of his city and state, and is an excellent illustration of that largeheartedness and nobility of character which has been so observable in the men who have had intimate acquaintance with the grand old forests of the state.

N. B. Clark.—Few of the industries connected with forestry are of greater importance and few have received less attention than that connected with the bark trade. When one stops to consider that the tanning of all the leather consumed in the world is contingent upon the use of tanning material of which oak and hemlock bark constitute the major and most important part, a slight perception is arrived at of the immensity and importance of the business comprised in the bark trade. So long as the pine lumber industry was the overshadowing feature of the forest product of Michigan, bark was comparatively neglected, and the business was largely confined to the small quantities of bark which the necessities of a small farmer or homesteader led him to prepare from the trees under his control, and which in the clearing up of his farm could be thus the more readily utilized. With a decadence of the pine lumber interest in the state, more attention was paid to what was hitherto esteemed the coarser of the products of the forest, and to none of these to a greater extent than has been accorded to hemlock, both in its adaptability to coarser uses as a building material and in equal or greater measure for the value of its bark as a tanning material.

Among the leading operators in this branch of Michigan forest products was Nelson B. Clark, long president of the Michigan Bark & Lumber company of Grand Rapids, Michigan, a gentleman who was a lumberman by descent as well as education, his father, Nathaniel Clark, being one of the pioneer lumbermen of the Pennsylvania district, where he operated from 1847 to 1861, upon the Clarion river in Elk and Jefferson counties, removing in 1861 to Michigan, where, settling at Vassar, Tuscola county, he bought a saw mill on the banks of the Cass river, a stream which has never been exceeded, if nearly equaled by the pine of any other section, whether it be in extent of quantity or quality. Here Mr. Clark (pere) brought up his son Nelson, to work, and indoctrinated him into the mysteries of the camp, the rollway, the drive, the manufacture and the sale of lumber, and fitted him for that active participation in business which was later marked with most signal success.

Nelson B. (son of Nathaniel) Clark was born in the town of Nunda, Livingston county, New York, July 4th, 1845, and received the benefits of a common school education, until the removal of his parents to Michigan in 1861, where he soon after became associated with his father in the saw mill business at Vassar, Tuscola county. Here father and son operated quite extensively, until in 1870, when the father retired from active business and has of late years resided at Reed City. Nathaniel was born in the state of New York October 2d, 1821, and is now at the ripe age of seventy-four, enjoying the happy results of a well-spent and busy life, in the affection of his children and a vast company of friends.

The quarter century from 1860 to 1885 comprised the palmy days of the Michigan lumber trade, but as the Cass river was one of the earliest streams to be operated upon by lumbermen so it was one of the first to show signs of depletion and exhaustion, and from the 40,000,000 feet of logs handled by the Cass River Boom company in 1864, increased to 100,458,140 feet in 1873, the output had dwindled in 1880 to 6,500,000 feet, these figures as well portraying the decadence of the local manufacturing interests at mills located upon the banks of the river. With the decrease of stock for supplying the mills, Mr. N. B. Clark appreciating the fact that hemlock must soon come into greater favor, and that its bark was always in demand, turned his attention to the bark trade, and from 1880 to 1889 his business increased to so great an extent that he associated Mr. W. A. Phelps with him in the firm of N. B. Clark & Co., which firm became incorporated in 1891, with a capital stock of $40,000, the parties in interest comprising N. B. Clark, W. A. Phelps, C. U. Clark (son of N. B.) and C. A. Phelps. In 1893 the interests held by the Messrs. Phelps was purchased by the Clarks and Mr. W. D. Wade, and the present organization, viz., N. B. Clark, president; W. D. Wade, vice-president, and C. U. Clark, secretary and treasurer, was instituted. The business of the company is largely confined to the trade in hemlock bark stripped from trees cut upon a 2,000 acre tract of the company's lands in Benzie, Kalkaska and Wexford counties while they are also large purchasers from other operators, and from farmers, shipping in car lots to the tanneries in all sections of the country, Michigan bark taking front rank in the richness of its tanning properties. The company is one of the most extensive among the operators in this branch of forest industry, their shipments for 1895 comprising 2,000 car loads and seventy-five vessel cargoes, or about 40,000 cords of bark. The timber from which this enormous quantity of bark was taken was to the extent of 7,000,000 feet cut into marketable sizes of building lumber and timber. The company also handled about 10,000 cedar telegraph poles, 20,000 cedar and hemlock railroad ties, together with 3,000,000 sawed shingles, and these figures are a fair indication of the extent of the company's yearly trade in these commodities.

Mr. Clark removed to Grand Rapids about 1886, residing at No. 15 Charles street. In 1867 he was united in marriage to Miss Isabella Higgins, three children, Clarence, Minnie and Frank having blessed the union. He was a member of Grand River Lodge No. 34, F. & A. M., Columbia Chapter No. 7, R. A. M., and of De Molai Commandery No. 5, K. T. He was also a member of Saladin Temple, N. O. M. S., and the representative of his Temple as a member of the Imperial Grand Council. He was also a Scottish Rite 32d degree Mason. In politics a Republican, he had taken an active part in public affairs in connection with the policy of that party. He was an attendant with his family of the Baptist church. Mr. Clark may properly be named as having been one of the leading citizens and progressive merchants of Grand Rapids, and there was probably no man in the country who was better posted upon all subjects connected with the lumber and bark trade, the business of his company in these products aggregating not far from $300,000 per year. The offices of the company are in the Widdicomb building, Grand Rapids. Mr. Clark died at Milwaukee, Wis., in the summer of 1897.

Clarence U. Clark, secretary and treasurer of the Michigan Bark & Lumber Company, is a son of the late president of the company, Mr. N. B. Clark. He was born November 27th, 1868, at Frankford, Mower county, Minnesota, and received his education in the public schools of Fremont, Michigan, and at the Swensburg Business College of Grand Rapids. He was for some time his father's representative upon the

D A Blodgett

road, in the buying of the products handled by the firm and company, and upon the incorporation of the company was placed in the highly responsible position of secretary and treasurer, a position calling for just such a live and energetic man as he has proved to be. Here is just another instance of the honorable heredity transmitted by ancestors, and intensified in both its social and business aspects by a wise and judicious parental training. He is a member of Grand River Lodge No. 34, F. & A. M. of Columbia Chapter No. 132, R. A. M. and of De Molai Commandery No. 5, K. T. and as well of Saladin Temple of the Mystic Shrine. Like his deceased father he is an earnest Republican and a good citizen. He was married October 15th, 1891, to Miss Cora E. Sees. Mr. Clark is a member of the "Knights of The Grip" attends the Congregational Church, and holds an enviable record as a good citizen, and a keen, sagacious and honorable business man.

Francis Lilley.—Among the best known and most highly esteemed of the lumber firms of western Michigan for many years has been that of Sisson & Lilley, and of the junior member of the firm it is now our privilege to speak.

Francis Lilley, of Grand Rapids, Michigan, was an Englishman by birth, he having first seen the light in the city of London on the 22d of June, 1844. He was brought to this country by his parents when but a child, so that whatever the accident of birth, he is by education, association and proclivities as good an American as though to the manor born. His parents settled in the state of New York in 1855, and Francis was educated at the schools of that state until at the breaking out of the war of the rebellion, although but seventeen years of age, he had so thoroughly imbibed American principles that without asking the consent of his parents he enlisted in the 119th New York Volunteer Infantry, with burning desire to assist in maintaining the integrity of what was now his own country, but his parents intervening, not from lack of loyalty or patriotism, but from a belief that the young man's constitution would not stand the strain of a campaign, he reluctantly obtained his discharge. In 1865 Mr. Lilley came to Michigan and entered the employ of the Cutler & Savidge Lumber company, and in 1871 became associated with George D. Sisson in the formation of the firm of Sisson & Lilley at Spring Lake, where they soon after erected the first (modern) gang saw mill on the Grand river, which in 1876 was enlarged to a capacity of 200,000 feet per day. The pathway of the firm was not strewn with thornless roses, for in 1883 a fire destroyed the mill yard together with 13,000,000 feet of sawed lumber. This heavy loss did not dismay, but rather stimulated these enterprising lumbermen, who at once proceeded to restock their yards with the fine lumber which characterized the Grand river production, only to have 9,000,000 feet more destroyed by fire upon their yards in the following May (1884). In 1883 the firm erected a mill on the Ontanagan river of the Upper Peninsula, which at that time was the largest mill in that section of the country; this was soon after sold to the Diamond Match company (destroyed by fire 1896). In 1884 the firm extended its operations in the incorporation of the Sisson & Lilley Lumber company, and erected a modern plant of saw, shingle and planing mills at a point on the Chicago & West Michigan railroad, where they established the town of Lilley, in Newaygo county, and built in connection and for the purpose of economical stocking of the plant a logging railroad extending eight miles into the tract of 30,000 acres of timber land which they had wisely secured in the neighborhood and which still constitutes the source of supply to the mills with their average production for ten years past of fully twenty-five million feet of lumber and fifteen million shingles per year. The company was incorporated with a paid up capital of $300,000, George H. Long being elected president, Francis Lilley vice-president and secretary, and George D. Sisson treasurer. The site of the mill is about sixty-five miles north of Grand Rapids, the lands of the company having been selected in advance of the building of the railroad upon which the mill is located. The company at one time carried on a large retail and distributing yard at Grand Rapids, purchasing largely of the cuts of other mills than their own, but with the development of trade direct from the mills by rail to the yards of the retailer in various parts of the country, the business operations of the company in this section were confined to their mill product at the yards at Lilley, where it was assorted to conform to the demands of the general trade, and where it, when properly seasoned and dressed in the planing mill, found ready market at points of consumption. Mr. Lilley has passed through all the various stages which go to establish his character as an expert lumberman, from the office to the camp, from the stump to the drive, and to the mill, from the saw to the planer and the railroad car, and in each of the varying capacities which a man is called to develop in the manufacture and sale of lumber he has had ample experience, and that it has been used to good effect his success in life demonstrates. In his earlier experiences his sales were by vessel to lake port markets; with the extension of railroads into the pineries he was shrewd enough to discover that this must shortly become the favorite method of disposing of at least such stock as should be manufactured in the interior, and that the "near by" timber bordering on floatable streams was rapidly approaching exhaustion, so that railroad transportation must supersede that by vessel to a great extent at least, and when once loaded upon the cars why should it not be taken direct to the territory of the ultimate consumer in Ohio, Indiana, Illinois, Michigan, New York or Mississippi? By this policy a vast business has been inaugurated with all sections of the states, a business of which Sisson & Lilley were pioneers, but are by no means monopolists.

Mr. Lilley has now rounded out a full thirty years in the lumber business of Michigan, and has acquired an enviable reputation as an energetic, straightforward and reliable business man and public spirited citizen. He is a Republican in politics, and while never craving political honors has held offices of trust in localities of his residence. He removed to Grand Rapids in 1887 and is there held in the highest esteem. He is a member of Valley City Lodge No. 34, F. & A. M., of Chapter No. 94, R. A. M., and of De Molai Commandery No. 5, K. T., and of Saladin Temple, N. O. M. S. He is also a member of the Peninsula club of Grand Rapids. He was married Feb. 12, 1864, to Miss Elizabeth Bauinger of Toronto, Ontario, who has brought him two daughters, Helen M. and Maud M., and the happy family, including the venerable father of Mr. Lilley, reside at 430 Cherry street, Grand Rapids, except when they are sojourning on the farm, which constitutes their summer home, and which is located on Reed Lake, in East Grand Rapids, at a convenient distance from the turmoil of the busy city, and upon which Mr. Lilley finds abundant opportunity to gratify his taste for breeding fine trotting stock, of which a four-year-old mare, "Valley Queen" recently did justice to his judgment by capturing a race at Lexington in 2:15¼.

The Jenison Brothers, of Jenison, Michigan, Hiram, Lucius and Luman, were among the earliest to engage in lumbering in western Michigan and the part they played in the development of the resources of that part of the state forms an interesting, important and instructive chapter. The brothers were born in New York state, and from both parents inherited the characteristics, the honesty, the independence, the thrift and the enterprise of the gallant Green Mountain boys. Their father, Lemuel Jenison, was born in Montpelier, Vermont, in 1783, a year after the colonies had gained their independence of Great Britain after a long and cruel war in which Vermont suffered as severely as any of the other colonies and had done as much to secure freedom, and in 1784, in the same town, was born Sarah Sanderson. The children were brought up together and as school companions formed the friendship which in later years ripened into love and culminated in their happy union. After their marriage they removed to Canton, St. Lawrence county, New York, where their children were born. The father was a farmer, and by industry and economy accumulated a modest fortune, but in the midst of prosperity came reverses which swept away nearly all he had saved. It was the old story. He endorsed for friends in whom he had confidence, the friends failed to meet their obligations and the creditors looked to the endorser for their money. Mr. Jenison sold his farm to Silas Wright, afterward governor of New York state, and in 1835, with his family and with what he had left of worldly goods, he started for what then was advertised as the El Dorado, the land of promise and hope, the future paradise, the Territory of Michigan. At that time, in 1835, Michigan was in the "far west;" it was still a territory not yet admitted to the Union, and its total population was barely 90,000, a population which the single city of Grand Rapids claims to-day. Detroit then was a town of 10,000 or 15,000 population, Grand Rapids a hamlet in which the first settlement had been made only two years earlier and the state as a whole was little more than a forest clad wilderness. The trip from Buffalo to Detroit was made by water and from Detroit the emigrants started westward through the woods for Grand Rapids, at that time advertised in the east as a future metropolis. The family was made up of the father and mother, three sons and four daughters. The sons were Hiram, born May 11, 1813, and Luman and Lucius, twins, born April 25, 1823.

The daughters were Altha, who married Nelson Bliss; Annie became the wife of Josiah McCarthy, to whom was born one daughter; Harriet the third sister married E. C. Putnam; they had one daughter. The youngest daughter married S. B. Hanchett, the issue being three children; another daughter died while the family resided in New York. The head of the family had but little money, but better than money he had a strong character, an iron will to surmount difficulties, and industry. Equally important, he had three sons, one old enough already to aid in bearing the burdens and the other two willing as soon as they should be able. The father with what little means he had left, purchased a tract of land in Georgetown township, Ottawa county, six or seven miles from Grand Rapids, and with a courageous heart and a strong arm he entered upon the work of carving out a home and fortune for himself and his family.

In 1835 Nathaniel Brown and Roswell Britton built a saw mill on Buck Creek and Lemuel Jenison and his son Hiram contracted to stock it with logs and to operate it. In this mill was cut the lumber that made up the first cargo of lumber that entered the city of Chicago on the "White Pigeon" in 1835. Hiram was then twenty-two years old and, as his father's right hand man, took a man's share of the responsibility and care. The two younger brothers, the twins, Lucius and Luman, were then twelve years old and did the work around home while their father and Hiram were engaged at the mill or in the woods. In those days the country was very sparsely settled and there were no schools. All the schooling they had was gained before they came to Michigan, and two years later a sad calamity befell the family which effectually dispelled any hopes for further education. While chopping a tree near the home, September 14, 1837, the father was struck by a limb and killed. The care and support of a widowed mother and the daughters of the family then devolved upon the boys. They bravely took up the burden and success rewarded their efforts. Four years later, in 1841, the beloved mother was called to the other shore and the sisters assumed her duties and kept house for "the boys."

In 1838, Hiram Jenison, in behalf of himself and his younger brothers, purchased a tract of 1,600 acres of white pine timber land of the Michigan Lumber Company of Chicago, paying $1.50 an acre. The land was located on Rush Creek, a tributary of Grand river. On the tract were two mills at the mouth of the creek, both built in 1835, one a 24 gang mill, which was changed to a siding mill, with capacity for 60,000 feet per day, and the other a mulay, with capacity for 4,000 feet. In a small way the brothers began lumbering on their own account, Hiram at the head of the enterprise and general manager by reason of his seniority, and Luman and Lucius as operators. The first year they cut about 1,000,000 feet of lumber and they gradually increased their output until it reached 4,000,000 feet. In this connection an extract from the report of Judge John Almy to the Michigan Board of Internal Improvement, on the survey of the Kalamazoo and Grand rivers, for the year 1837 will be of interest.

"At the rapids of Grand river, and within a circle of eight miles around the same, there are in operation no less than eight saw-mills, and several of these mills are double mills," says the report. "Three millions of feet would be a low estimate as the average amount of lumber cut by these mills during the season of their operation. * * * * What has been remarked in relation to lumbering operations on Grand river will apply with equal force to the Kalamazoo; at no single period within the limits of the state, to my knowledge, has the business of manufacturing lumber been so exclusively an object of attention, as at the village of Allegan; I speak unadvisedly, but nevertheless I will hazard the assertion that the mills at this place have cut the last season more than four million feet, a great proportion of which has been floated down the river to Lake Michigan to be there shipped for market."

This extract from an official state document is intended to show, not the extent of lumbering operation in western Michigan at that time, but the important part that three young men, two of them nothing more than boys except in character and energy, took in what was still an infant industry.

The logs were floated down Rush Creek to the mills, which were operated by water power, and the lumber was rafted to Grand Haven. The first raft was taken down by Luman Jenison, then a lad of sixteen, in 1839, and to this day he remembers the hard work to which he was put to draw water from the river to wash off the accumulated dust and mud from the boards that they might present a neat and clean appearance when offered for sale. The lumber raft was purchased by the late Hon. Thomas D. Gilbert, then engaged in forwarding and shipping at Grand Haven, at $6.50 per M. and by him was shipped to Chicago in the Lizzie Throop, one of the earliest of the Lake Michigan craft. Mr. Gilbert, like the Jenisons, was a young man with his career before him and his fortune to make, and then, as throughout his long and useful life, he was the soul of honor, the personification of integrity and uprightness. He personally inspected the lumber and thus began business relations which continued for many years and always harmonious.

Luman and Lucius Jenison continued their operations in the two mills at the mouth of Rush Creek, Luman assuming the business management and Lucius superintending the work in the woods and mills; they bought many tracts of timber land along the lower Grand river and in addition purchased all the logs that were offered for sale by their neighbors. Up to 1863 they confined themselves to lumbering exclusively and by that time, by skillful management both in the business office and in the mills, had accumulated a comfortable fortune. They lived on the old homestead which their father had purchased when he brought his family to Michigan, and with characteristic thrift, instead of abandoning the lands which they stripped of timber they converted the wilderness into substantial farms, either selling the lands to settlers or themselves making the improvements necessary to render the broad acres productive. In 1863 they tore down the smaller of the two mills and a year later in its place built a large flouring mill with capacity for fifty barrels of flour daily, and costing $18,000. The other mill was overhauled at an expense of $15,000 and instead of being operated by water power, steam was substituted, and is still in operation three to six months in a year, employing about thirty hands. The flouring mill is fitted with six rollers and equipped with all the modern improvements and the farmers for miles around go there to have their grinding done. The place is called Jenison, in honor of those who have made it the scene of their life work, and in addition to the mills and the cosy homes of those employed in them, there is a hotel, a general store, the railroad depot, and a foundry and machine shop. Some of the lands which the brothers purchased for the timber was afterward found to have a rich deposit of gypsum and this valuable resource has been energetically developed. The quarries are at Grandville, a mile from Jenison, and cover 160 acres, and annually 10,000 tons of plaster of the finest quality are taken out, half of it to be converted into stucco and the rest for land plaster. Four acres of the plaster lands have recently been sold to the state to be used as the site for a state fish hatchery where black bass will be propagated. It is expected that upwards of $25,000 will be expended in improvements and when fully established millions of bass will be sent out annually to stock the streams of the state. The hatchery will be a veritable park, with fountains, shade trees, flowers and pretty buildings and will be an attractive resort for city visitors. The machine shop and foundry was established in 1890 and is equipped with the most modern and best appliances, and the plant represents an investment of $75,000, producing railroad gates, frogs, switches and other railroad equipment, besides the Holland patent steam radiators and other modern necessities in iron and steel. In addition to the property at Jenison, they own what is known as the Country Club property on Fisk lake, near Grand Rapids, property which has been greatly improved since they purchased it and is now estimated in value at $40,000. They own a summer resort on the shores of Black Lake, near Holland, 80 acres of choice land at the mouth of Grand river, 600 acres of hardwood and hemlock timber land near Blendon for which ten years ago they paid $6 an acre and which is now worth $25 an acre, and several large farms under cultivation, and in all they have undertaken success has followed their enterprise and business ability.

In 1878 the Baltimore and Ohio railroad was projected from Grand Haven to Grand Rapids. The line was surveyed, the right of way secured and the road bed graded. The Jenisons advanced large sums of money and when the company failed two years later they bid in the property at foreclosure sale at $90,000. The Grand River railroad company later utilized the old road bed. When the Chicago and West Michigan railroad was projected, with characteristic liberality in promoting public enterprises, the Jenisons not only gave the right of way through their possessions, but added a substantial subscription in cash.

In 1880 Levi Husband entered the employ of the brothers as bookkeeper. It took but a short time for him to demonstrate his sterling worth and high executive ability and soon the entire charge of the store at Jenison was entrusted to him, besides other responsibilities in connection with their extensive interests. His daughter, Miss Bessie Husband, completed her education at the age of eighteen and entered the office as her father's assistant. One year later Mr. Husband suffered a fatal stroke of apoplexy. The daughter retained her place in the office, quickly familiarized herself with all the details of the business and was given the management, and a most successful and efficient manager she has proven.

At Jenison is the old family homestead and a sacred acre has been set aside for the family burial ground. When the father died in 1837 there were no cemeteries established in this part of the state and he was laid to rest in a picturesque spot near the old home. When the mother died four years later she was laid by his side. The plot has been surrounded with an iron fence and a monument of granite has been erected to mark the resting place of those who have gone before. A mausoleum has been erected at a cost of $12,000 to $15,000 by Lucius and Luman, containing two sarcophagii of Italian marble in which the twins, so long united in life will rest together in death.

In politics the brothers were born Democrats and throughout their lives they remained steadfast to the faith of Jackson and Jefferson, and were Democrats not only in politics but in principle and in their lives, as kindly, as courteous and as cordial to the humblest workman as to those who wore fine clothing. Hiram served one term in the state legislature, being elected in 1853 and Luman and Lucius have held minor local offices, but with large business interests to look after they did not seek political preferment and many times declined to permit the use of their names in conventions as candidates for office when they could have secured such honors for the asking.

In religion Lucius and Luman belonged to no church, but gave freely to all, in fact no worthy cause, whether religious, charitable or of a public nature has ever passed their door unaided. When All Souls Universalists church was built in Grand Rapids they contributed $1,000 in aid of the building fund and this is but a single instance of their generosity.

In 1885 Luman and Lucius Jenison celebrated the fiftieth anniversary of the settlement of the Jenison family in Michigan by entertaining a host of friends at the old homestead. Upon this happy occasion a poem was read by Mrs. Annis L. Lane, one passage of which aptly describes the relations of the twins:

> Side by side have the brothers walked
> Through the many years of life.
> Through childhood days and sunny youth
> And glowing manhood's strife.

At the same time, one of the local papers in telling of the reception said:

"The history of the two brothers, Luman and Lucius, is strangely coincident. They are 'about the same age'—being twins. They have always been associated in business; they went to school together, whipped the 'bully' together, threw paper wads at the teacher together, wrote love letters to the same girl, married the same girl and have the same number of children—both being bachelors. Thus their lives have been identical, and on this fiftieth anniversary both were made the recipients of many good wishes, and The Eagle with the rest congratulates them on their success in life and hopes they may live many years to dispense such hospitality as came to all last night, freighted with the sweet odor of 'old times.'"

Their lives, indeed, have been identical. Both are bachelors and with congenial tastes, congenial views and similar habits. With business relations extending over half a century they have never had the slightest disagreement or division, either in relation to or in their business affairs. What one owns is equally that of the other and in speaking of their property interests with both of them it is "ours" and not "mine." They were born twins and veritably have been twins through life, sharing the burdens and dividing the joys, the interest of one being equally the concern of the other. Inflexibly honest and thoroughly just both of them, not only with each other but with the world, these relations have been possible, otherwise there would have been dissensions and disagreements and separation. In charity both have been free, yet their charities have been quiet, unostentatious and unknown beyond themselves and the recipients.

Luman Jenison is a member of two fraternal organizations, the Grand Rapids Lodge, No. 322, of Free and Accepted Masons and Daisy Lodge, No. 48, Benevolent and Protective Order of Elks. Lucius does not belong to any order but is or may be called a grand master in the great brotherhood of man.

Daniel McCoy, president of the State Bank of Michigan, at Grand Rapids, was born July 17th, 1845, at Philadelphia, Pennsylvania. His father, John McCoy, died when Daniel was but a boy, but a judicious mother gave to the son the advantages of the schools of that city, which enabled him early in life to strike out for himself, and he began his business experience as a clerk in a wholesale hardware house in his native city. At the age of 21 he went to the Burning Spring oil district in West Virginia, where he remained about a year and in 1867 visited Michigan, where he spent some time with his grandfather, one of the pioneers of Oakland county, and where some uncles were residing. Here he became interested in the lumber business, and in 1872 entered into partnership with James A. Remick of Detroit and John G. Riggs of Saginaw and the firm of Remick, Riggs & McCoy operated in logging and lumbering on the south branch of the Manistee river in Lake and other western counties of the state. Their first operation was in the cutting of a large amount of cork pine timber, driving the same to Manistee, where this variety of timber was so little known, that it was difficult to find a purchaser, and it became necessary in order to realize to the best advantage, to procure the sawing of the logs which was done at the mill of John Canfield. This variety of timber was to be found only in scattering bodies throughout the lower Peninsula, and because of its richness (these logs cutting fifty per cent. to uppers), was not in demand in the west, and must seek an eastern market, with which manufacturers in western Michigan were at that time but little acquainted. Dealers in the eastern sections of the state knew the value of this soft and clear timber, and David Whitney of Detroit was not slow to purchase it. This was the first cork pine sawed in any quantity at Manistee, and the first lumber to be cross piled, but it did not by any means prove to be the last, and Remick, Driggs & Co. operated upon their fine tract for a considerable period. In 1873 Mr. McCoy became interested with Charles M. Ayer in large bodies of land located in the Clam Lake (now known as Cadillac) region, and to as late as 1882 the firm of McCoy & Ayer was well-known as among the most enterprising and successful lumbermen in that section of the state. They erected mills at Cadillac with a cutting capacity of sixty thousand feet per day, making a specialty of long bill stuff and heavy timber, for which they found an ever increasing demand for bridge timber and railroad work, the sidings and shorter lumber and lath finding a market by rail to Indiana, Ohio, and southern Michigan points, and had shortly established a trade which compelled them to handle the cut of two and three other mills than their own. They were among the first to adopt the policy of seeking a trade direct from the mill with the retailer, in car lots, without the intervention of the wholesaler or middleman, and so rapidly did their trade extend, that constant additions were requisite to their producing abilities, and beside enlargements to their mills, they adopted the system of railroad logging, and built a narrow gauge road extending five miles into their pineries for that purpose. In 1883 Mr. McCoy purchased his partner's interest, and continued the business alone for the next ten years.

In 1885, he removed his saw and planing mills and plant, to Lake county, and located on the "Luther branch" of the Grand Rapids & Indiana railroad, where he continued until 1892, when he disposed of his lumber interest, and has since given his time and attention to the various investments, the results of so many years of hard work in connection with the lumber trade, the entire period embracing operations on the line of the Grand Rapids & Indiana railroad, and during this period engaging in every department of the trade from the stump to the saw mill, and planing mill, and to the disposition of the product to the retailer or consumer. During the continuance of these extensive operations, Mr. McCoy for ten years resided at Cadillac, being a pioneer in its settlement where he was elected to the presidency of its village council, and upon its incorporation as a city, he was from 1881 to 1883 elected to fill the office of mayor for three consecutive terms. He was chairman of the Wexford county Republican committee, and since removing to Grand Rapids has filled the same position with the Kent County Republican committee. He has been president of the State Bank of Michigan since its organization in 1893, and president of the Edison Light Co. of Grand Rapids, is vice-president of the Michigan Brush Co., and a director in the Michigan Vapor Stove Co., is interested in the Alden Manufacturing Co., and a director in the Grand Rapids Electric Co., and also in the J. C. Helkner Jewelry Co., and in the Grand Rapids Brewing Co., so that it will readily be perceived that he is not likely to rust out for want of active employment for his busy brain.

Mr. McCoy was married October 19th, 1869, to Miss Gail L., daughter of Alvin B. Ayer, Esq., of Romeo, Michigan, and four children, Helen F., Ralph, Catherine, and Gerald, have blessed the union. Mr. and Mrs. McCoy reside at 82 Paris avenue, Grand Rapids, and the family are attendants of the Park Avenue Congregational church.

John Dregge.—While it may be, and undoubtedly is a fact, that the larger proportion of our western lumbermen are native Americans, and that Maine and Pennsylvania have supplied much of the brawn and sinew which has been expended in realizing upon our forest resources, it is still indisputable that some of our most intelligent and thrifty operators, were born upon foreign soil, while it is equally true that they have thrived under a Republican form of government, and must be numbered among the citizens of most sterling worth, and truest Americanism.

John Dregge of Grand Rapids was born in the Netherlands, April 18th, 1852, and was the son of Martin Dregge, who came to this country in 1873 and settled at Grand Rapids. John was educated in the schools of Holland, and on reaching this country was ready for taking up the work of his life, which in 1873 he found awaiting him at Grand Rapids. Unlike many another aspirant for the favors of the fickle goddess of fortune, John Dregge delayed not to find an easy occupation, but began work in a saw mill and gained practical knowledge of the lumber business in handling, sorting and piling lumber in the yards of his employers, and this to him proved the royal road to that success which has marked his life's endeavors. In 1875 he paid a visit to his native land and taking to himself a wife, returned to Grand Rapids. In 1883 Mr. Dregge became associated with John Dale in the firm of Dale & Dregge, which opened a lumber yard on Canal street, and was succeeded one year later by the firm of Dregge & Follett. It was scarcely a year later that Mr. Dregge's health so failed him that he was compelled to relinquish the business, and he decided to pay a second visit to the scenes of his childhood in the land of his birth. On his return to Grand Rapids in 1886 Mr. Dregge established himself in business on Court street and the Grand Rapids & Indiana railroad tracks, on a block of ground 125x200 feet, where he did business until his death. He was president of the Jelles, Dregge Planing Mill company on Prescott street, where with a capital stock of $10,000, about twenty men are employed in the preparation of interior and exterior finish. In his yards Mr. Dregge carried a stock of pine, hemlock and the various hardwoods which now enter so largely into the interior finish of not only the larger and more pretentious structures, but into nearly every description of residence and business block, his business reaching to the extent of from $150,000 to $200,000 per year. He was a stockholder in the State Bank, and also in the Fifth National Bank of Grand Rapids, a director in the Holland Building and Loan association, and a member of the Knights of Maccabees. That Mr. Dregge has made a success from a business point of view will be readily appreciated in a comparison of the green Hollander with but three dollars in his pocket when he reached Grand Rapids in 1873 with the honored merchant of 1895. His is but another illustration of the truth that energy and integrity are sure winners in the race of life.

He resided at No. 508 Jefferson avenue, Grand Rapids, and from 1891 to 1893 represented the Tenth ward in the city council. Republican in politics, he was recognized not only as a faithful worker, but as a public spirited citizen. He was a member, and for two years was a director, in the Michigan Retail Lumber Dealers' association. This country has open armed welcome for all citizens of foreign birth, who bring with them to their new home the excellent traits of loyalty, intelligence and good citizenship which have marked the history of John Dregge.

Six children have been the issue of his marriage, three sons and three daughters all of whom are living. Charles, born September 2d, 1879; Martin J., September 23d, 1881; Cornelius A., October 8th, 1883; Frances, December 9th, 1875; Nellie, December 19th, 1877; Mary Catherine, September 17th, 1887. Mr. Dregge died at Grand Rapids in the winter of 1896-7.

Charles H. Chick.—The lumber business of the northwest has to no small extent been prosecuted by "men from Maine," the original lumber producing state of the union, whose sons grew up in familiar intercourse with forest life and surroundings, and when it became apparent that the great northwest presented superior attractions in its timber supply, were not slow to avail themselves of the opportunities presented; and the sons of Maine have been an important factor in the forestry of Michigan and the northwest for more than a half century.

Charles H. Chick, of Grand Rapids, was the son of Samuel C. Chick, one of the old time lumbermen of the Pine Tree state, in which he lived and died. Charles was born at Cornish, York county, Maine, November 9th, 1850, and as a boy became familiar with camp life and the business of lumbering, from his father's operations. At the age of seventeen, he, in 1867, came west and settled in Saginaw, where he found employ on the river running logs from the Cass and Tittabawassee booms, his winters being spent in the logging camps as scaler, and in other capacities on the streams of the Saginaw, and later, on the Flat river of Kent county, the Muskegon, Manistee and the Pere Marquette rivers, on each of which he has had camps for logging and driving. His practical experience in the wood and on the drive, in both of which he served a faithful apprenticeship, led to his employ by Danaher & Melendy of Ludington, first as scaler, but soon after being placed in charge of their operations in the woods in the winter months, and in estimating pine in summer. Like the thrifty Yankee that he was and is, he saved his earnings, and purchased a quarter section of pine lands in Lake county, the sale of which a little later added materially to his capital, and he began the business of buying and selling lands, and to so good purpose, that his operations in 1884 reached the sum of one million five hundred thousand dollars, of which six hundred thousand dollars was in sales to one firm. His intimate and inbred knowledge of all the conditions and surroundings such as are demanded in the judicious selection of timber lands, and no less of the details of the camp, have at all times been of the highest service in leading to well merited success in his operations in such lands, in which he has been associated with Rupp & Kerr of Saginaw, Morton & Lewis of Grand Rapids, W. R. Thorson of Manistee, and twenty other partners in different states. Mr. Chick has of late operated in the Ontonagon district of the upper peninsula, his later operations on that river including a logging cut of twelve million feet per winter, the cut of 1894 being purchased by the Diamond Match company, which is abundant evidence of its high grade, and an evidence of the character of the timber of that region. Mr. Chick's success in this department has been largely due to his wide experience supplemented by his personal supervision. Lumbering to some extent each winter, he manages his own camps, while yet making it but an adjunct to his main business of the purchase and sale of lands and logs, he having interests in no less than eighty-seven townships in Michigan, Wisconsin and Minnesota, with large interests in eastern Tennesee, and other sections of the south, those of Michigan being principally located in the upper peninsula, comprising some of the best selections in that section of the state, and which he holds as an investment. He has resided at Grand Rapids for the past twelve years, and from that point directed the vast business which his energy has created, and which has included the personal examination and location of vast bodies of pine and other lands in nearly every part of the north, west and south, while his handling of logs during the same time has amounted to hundreds of millions of feet. In politics Mr. Chick is a Republican, and while frequently refusing political preferment, for which he has little taste, he was for a period Supervisor of the Township of Pleasant Plains in Lake county and, it is needless to say, filled the position with credit to himself and to the benefit of his constituents. He was married May 1st, 1873, to Miss Isadore Taylor of Pleasant Plain township, and has been blessed with a family of three sons, Claude C., Vinton L. and Glenn. He is and has been for the past seven years a director in the Fifth National Bank of Grand Rapids.

Engrossed as he is in his extended business affairs, Mr. Chick has yet found time to visit nearly every section of the north and northwest, including a cursory survey of the region about Hudson Bay, and the vast unsurveyed tracts and territory of Canada west, and has located lands in the neighborhood of the gold mines known as the "Little American mine" district; he has hunted the moose and the caribou in the mountains of the great northwest and his office is adorned with the antlers of those animals, mute witnesses of his prowess as a hunter, and trophies of

D. H. Waters.

a trip from Fort Francis, down the Rainy river in birch bark canoes. He preserves also as mementos, the two bark canoes which constituted his flotilla for a trip of three hundred miles from and on the head waters of the Mississippi from Indian river northward to the big fork of Rainy river, up Rice river, and through the chain of lakes leading back to the Mississippi, and in which his knowledge of woodcraft enabled him to perform the perilous journey without a guide. He has "looked lands" not only in the north but as well in the states of Arkansas, Missouri, Alabama, Tennessee, Louisiana, Florida, Mississippi, Dakota and Manitoba, and as far east as Pennsylvania and the state of Maine. He has taken great interest in the breeding of Shetland ponies upon his farm near Grand Rapids, upon which his piscatorial instincts are exhibited in an extensive fish preserve and upon which he has already planted over six thousand fruit trees of different varieties, and is constantly increasing the number. As a land looker Mr. Chick has probably located as much if not more timber land than any other man in that business in the state of Michigan; as a lumberman he has proved a success; as a sportsman he shows the trophies of the chase; as a Nimrod he shares his pleasures with his many friends; as a farmer, future generations will bless him as a public benefactor, and as a citizen he enjoys the confidence of his fellows as a man of energy and public spirit.

Rawson Bros. & Co.—The firm of Rawson Bros. & Co. is one of the best known in the lumber and contracting circles of Grand Rapids and western Michigan. The business was established in 1881 by John Rawson, a contractor and builder, who in 1884 associated with him his brother James Rawson, and in 1891 William Green was added to the firm. Carrying on the business for several years in a modest shop they in 1888 opened a retail lumber yard in connection with their contracting and building operations, and in 1890 removed to South Division street and the crossing of the Detroit, Lansing & Northern railroad, where they erected a factory and planing mill for the more expeditious conduct of their various branches of business. They soon found that the three acres of ground comprised in the location, gave none too much room for their expanding trade, which required the supply of fifty to sixty men in the factory, with a total of 150 employes in the various ramifications of their business, including that of contracting and building, making a specialty of finer work and more expensive residences, and public buildings of the better class, their yard stock of pine and hardwoods of all kinds enabling selections of trim and finish, which in their well equipped factory they are enabled to prepare for the intended use. Among the prominent buildings erected by the firm, and they are by no means confined to Grand Rapids, may be named the elegant Blodgett building, the Briggs block, the Hartman & Sheppard block, and the Division street school building at Grand Rapids; the ornate depot at Muskegon, and that at Waverly; the Island house at Mackinaw Island, and the Blodgett cottage at that noted summer resort, while they have been extensively known as railroad contractors. Their extensive hardwood business includes stock from the forests of Michigan and the south, with large quantities of southern long leaf pine and cypress; this with Michigan pine goes into a volume of business aggregating fully $150,000 per year, which this enterprising house enjoys. Among the later erections which do credit to this firm, may be named the M. J. Clark building, Hartman hall, the Fox block and the elegant Masonic Temple in Grand Rapids and the interior finish of the Ottawa and Charlotte county court houses. Mr. John Rawson was born at Port Hope, Canada, May 24, 1855; his father, William Rawson, was a builder, but died when John was but five years of age. The boy was educated at the excellent schools of Port Hope, and at the age of seventeen was inclined to learn his father's trade of carpenter, which he followed for several years before coming west to Michigan, where in 1880 he settled at Grand Rapids, where he has since developed a trade second to that of no other in the same line of business in the state. He married Miss Casandra Fulsher of Port Hope, Ontario, in 1877, and has four children. The family residence is at 234 Paine avenue. He is vice-president of the Masonic Life Insurance Co., and was one of the originators and a director of the Mutual Home and Savings association and for a long time has been chairman of its committee on loans; he is a member of the school board and chairman of the building committee. In politics a Republican, he has been a recognized force in the counsels of the party, and could have any office in the gift of the city upon giving his consent to accept it. Standing high in Masonic circles, he is now a representative at the Grand lodge, and a member of the finance committee, and W. M. of Valley City lodge No. 86 F. & A. M. He is also a member of Grand Rapids chapter No. 7, R. A. M.; also the T. I. M. of Tyre council No. 10 R. & S. M.; also a member of De Molai commandery No. 5, K. T., and a member of Saladin Temple, Nobles of Mystic Shrine. The firm are members of the Retail Lumber Dealers' association of Michigan, and the subject of our sketch was the first president of the Builders' Association of Grand Rapids, a position held by him for three years, during which time he represented the association at general meetings of the trade at Cincinnati, Philadelphia, Chicago, St. Paul and other points. He is an expert mathematician, and his large experience as a contractor and builder has fitted him as an insurance adjuster, in which capacity his services are greatly in demand, his fairness and intelligent judgment commending itself to the approval of both parties in interest.

James Rawson, of the firm of Rawson Bros. & Co., was born at Port Hope, Ontario, February 23, 1853, and spent his boyhood on the farm near Port Hope. His father, a carpenter-farmer, died when James was but seven years of age. James attended school at Port Hope until imbued with a desire to do something in the world, and selecting the trade which his father had followed, he learned carpentering and joinering. In 1872 he came west and settled at Grand Rapids and in 1874 entered the employ of Berkey & Gay, where for ten years he was a manufacturer of furniture and cabinet ware. In 1884 he joined his brother John in the formation of the firm of Rawson Bros. & Co., and as his education well fitted him for the duty, took charge of the building interests of the firm, in which they have reaped so abundant a success. He is a Mason of high degree, being a member of all the Masonic bodies in Grand Rapids, including York rights degrees, being for three years Worshipful Master of Valley City lodge No. 86 F. & A. M. He is also a member of Imperial lodge No. 427, I. O. O. F., and as well of the Order of Foresters. He is a man who stands high in the esteem of his fellows, and one who has left the mark of a highly aesthetic taste upon many of the public and private buildings of Grand Rapids and the State of Michigan. He is a Republican in politics. He was married in 1875 to Miss Mary Grant of Ontario, and has a family of three children. The firm has an office at the factory and also up town in the Porter block.

Simon Peter Swartz.—The lumber regions of New York and Pennsylvania have vied with the state of Maine in sending into the western pineries men who were well skilled in forestry, and who combined in their characters those qualifications which go to make a useful citizen and a competent lumberman in the newly opening market. One of the most active and prominent lumbermen of Grand Rapids is Simon Peter Swartz, who has made that city his home since 1869. Mr. Swartz is a product of the Keystone State, having been born near Williamsport September 17, 1840. He was a son of Peter Swartz, who came of the honored race known as "Pennsylvania Dutch," noted for their thrift and stability. Peter removed from Williamsport some years after the birth of Simon, and was for a quarter century one of the prominent lumbermen of the Clearfield, Pa., district noted for many years for the excellent red knot lumber which delighted the eye of a lumberman, and in the abundance of its "pickings," made plethoric his bank account. The head waters of the Susquehannah were for many years the central point of lumber manufacture west of the Maine district, and Mr. Swartz operated his saw mill and did a general logging business, rafting his lumber down the Susquehannah river, finding a market at various points, and continued in this business for over twenty-five years, while his son Simon grew up with the sympathies and tastes of a lumberman, and when but a boy was an expert in the business of logging, lumbering and rafting and attending the tail end of his father's saw mill, which was of the type common to those days, being a mulay mill run by water power, a style of mill seldom or never seen in these days of improved machinery. Before he was of age Simon was the efficient manager of his father's logging camps, and in 1863-4 when but twenty-three years of age built the camps and handled the winter's operations with a force of twenty men, with an output for the winter of over two million feet of logs, which he put into Moshanno creek near Phillipsburg Center and which being disposed of, yielded him a clear profit of between $6,000 and $7,000 for his winter's work. In 1865, he, feeling the necessity of a better education, took a business course at the Bryant & Stratton Commercial college at Philadelphia, and during the summer of 1866 and for the next two years was a clerk in his father's store at Phillipsburg. He had in 1862 attended Dickinson's seminary, subsequently teaching school for four months near Williamsport, but from 1865 to 1869 gave the major part of his time to logging, so that when in 1870 he removed to Grand Rapids, Michigan, he was well equipped with a ripe experience, fitting him to operate intelligently in his new field of labor, and securing some timber lands about five miles from Grand Rapids he took a contract for supplying the timber for the erection of the Little & Wonderly mill at the Rapids. Having but a small capital at this time, he gave most of his attention to the purchase of logs which he delivered at the mill, or had sawed for his own account, and in this he was successful to an extent which quickly enabled him to enlarge his operations, and he was soon found on the various tributaries of Grand river, with large camps and a large force of men, realizing as the years rolled by, the ordinary experience of success and reverses in logging operations upon Black creek, of Flat river and other streams. Later he embarked in the shingle business also, which in 1882 led to losses of $16,000 which, however, did not lead to discouragement, but rather proved a stimulant to increased exertion and enterprise. Continuing in the manufacture and wholesaling of lumber at the yards established by him at Grand Rapids as early as 1878, in which year he purchased a planing mill on First avenue, on the line of the Grand Rapids & Indiana railroad, he has since been a large manufacturer of all kinds of interior house finish, finding an ever enlarging market in all sections of the country, his trade extending throughout Michigan and the south and east, the volume reaching to from five to eight million feet yearly, in addition to about ten million shingles, his shipments since the commencement of his business in 1870 aggregating no less than 100,000,000 feet of lumber to points outside of the state. In March, 1870, he inaugurated the now extensive trade of that section of the state with southern points, shipping at that time three cars to H. G. VanSagen of Louisville, Kentucky, embracing 26,484 feet of white pine uppers and selects, of a value of $46.00 per thousand. This was the first shipment to that section, and as there were no bridges across the Ohio river it reached its destination by means of ferriage. It would appear that this venture was highly satisfactory for it was almost immediately followed by an order from a Mr. Perkins for a considerable shipment at the price of $46 per thousand, and by orders from Evansville, Indiana, for several carloads at $46 and $47 per thousand, which illustrates not only the energy and enterprise of Mr. Swartz, but as well the character of the demand and the value of the product.

Mr. Swartz resides at 41 State street, Grand Rapids. He was married in 1871 to Miss Harriet L. daughter of W. W. Weatherly, esq., of Springville, New York, and has one daughter, Miss Lillie Belle, an excellent young lady of a business turn of mind, who is the chief bookkeeper in her father's office, rendering him most valuable service. Mr. Swartz and his family are attendants of the Baptist church, and are held in the highest esteem by the large circle of friends which such an experience in life must inevitably bring to the upright and energetic.

W. E. Barrett & Co., Grand Rapids, Mich.—This widely known firm is engaged in the manufacture of lumber, lath and shingles and conduct their business on the wholesale plan. The head of the firm was born in South Bend, Indiana, January 9, 1857, a son of one of the first settlers of that city, William L. Barrett, who removed to that section from the state of New York in 1835, becoming the pioneer jeweler of South Bend. He is the oldest Free Mason in that city and was a charter member and the first master of the lodge at that place. He has at this writing reached the advanced age of eighty-seven years. W. E. Barrett received the advantages of the public schools of his native city, and although he learned the trade of a jeweler under his father, the work was not congenial to him and he began learning telegraphy when fifteen years of age. His first position as operator was at Fife Lake on the G. R. & I. railroad, and after filling other positions with that road, he was appointed train dispatcher and served in this capacity for several years. For a year thereafter he was with the Grand Trunk road at South Bend, then with the Mutual Union Telegraph Co. at that place as general manager, but gave up this work in 1881 to engage in the lumber business, he purchasing lumber and selling it to South Bend manufacturers, and although the capital with which he commenced was very small, he prospered financially, buying and selling in carload lots, and in 1885 established a general wholesale lumber business at Grand Rapids, Michigan. His sales are large and necessitate the handling of 10,000,000 feet of lumber and 100,000,000 shingles yearly. He takes the cut of several large mills in the northern part of Michigan and distributes to various points in Michigan, Ohio, Indiana and New York state. Mr. Barrett has been highly successful in this work and has proved that he has at last found his true vocation, for he started in the business in a very modest way but under his capable management it has grown to vast proportions. He is a 32d degree Mason and a member of Grand Rapids lodge, F. & A. M.

Charles McQuewan.—In no way can the growth and prosperity of a city be determined so well as by the progress made by the leading business firms thereof, such always standing as indices to the city's condition. Among such barometers the lumbering firms should rank among the first. One of the leading dealers in hardwood lumber at Grand Rapids, Michigan, is Charles McQuewan, who has been established there since November, 1885. In 1894, in addition to his hardwood lumber business, he entered into partnership with R. G. Macfie for the sale of mahogany and veneers, at the same time continuing his hardwood business alone. The firm of Macfie & McQuewan handled during the year 1894, 151,000 feet of Mexican & Honduras mahogany, since increasing their sales to nearly 200,000 feet annually. In January, 1897, Mr. McQuewan bought out his partner's interest and in addition to his mahogany business handles oak, birch, basswood, ash, maple, elm and pine lumber, averaging nearly 2,000,000 feet annually. Mr. McQuewan does a wholesale business, mainly in Grand Rapids, selling mostly to manufacturers. He is also agent for the Indianapolis Lumber & Veneer company, of Indianapolis, Indiana.

Mr. McQuewan's first connection with the lumbering interests of the state commenced in 1881, when he became interested in a box factory in Grand Rapids, with F. R. Blount, their connection continuing four years. He was born in Pittsburg, Pennsylvania, in 1859, March 14, a son of Allen Boyd McQuewan, a native Pennsylvanian, and senior member of the lumbering firm of McQuewan & Douglas of that city. The elder McQuewan died in Grand Rapids in 1871. His father was a native of Scotland and he was the first to establish the firm of McQuewan & Douglas, and his son, Allen B., succeeded him in business. The latter was one of the founders of the Tioga Manufacturing Co. at Big Rapids, Michigan, where he was for years engaged in the manufacture of pine lumber. He was connected with A. B. Long & Sons of Grand Rapids, when he first came to Michigan in 1870, but still held his connection in the east. He was a Republican in politics. His widow survives him and makes her home in Grand Rapids. She bore her husband three sons and four daughters: John, United States commissioner for the Grand Rapids district; Charles, Mrs. L. H. Withey of Grand Rapids, Mrs. A. Bevier of New York City, Ella and two who died young. Charles McQuewan was educated in Pittsburg and Grand Rapids, his first entrance into business life being as a bookkeeper. He is a Republican politically, a member of the Lakeside club and Imperial lodge of the Knights of Pythias. He married Harriet, daughter of Judge James A. Miner, formerly of Marshall, and now judge of the United States Superior Court, Salt Lake City, Utah.

William F. Simmons.—Among the lumbermen of Grand Rapids is the subject of this sketch, who is a native of New York state, born in Rochester, April 5, 1850. He was reared on a farm and received his education in the country schools. When but seventeen years of age he left his home in New York and went to Grand Rapids, Michigan, whither his father, Isaac Simmons, also went some time later.

In 1873 the younger Mr. Simmons was employed as a pine lumber inspector, which, together with an occasional trip on the road as salesman, he continued until the year 1883, when he engaged in the hardwood lumber business in Grand Rapids on his own account and did quite an extensive business for four years, when he went out of business. From 1888 to 1893 he did quite a large partnership business, but since the latter year until the present time he has conducted his business single-handed, but owing to the depressed condition of affairs it has been limited.

George F. Sinclair was born at Chicago, Illinois, on the 20th of November, 1847. His father, Lewis G. Sinclair, was a native of France, having been born in the city of Nantes, on the Louire, December 27, 1800. At the age of sixteen in company with a brother, he crossed the ocean to America, but soon after their arrival they became separated, Lewis adopting a seafaring life, and passing from the forecastle to the cabin during the fourteen years of his sea-going, filling the position of third, second and first mate, which was as high as he could attain, being a foreigner by birth, and so debarred from the position of command under the admiralty laws of the United States. On April 30, 1828, two years before he quit the sea, he was married to Miss Jane Talmadge of New Haven, Connecticut, where she was born December 31, 1808. The Talmadge family was one of the old continental families of which Rev. T. DeWitt Talmadge of Brooklyn is a lineal descendant, and which took rank among the most highly esteemed families of the ante-revolutionary period. Leaving the sea in 1831 Mr. Sinclair, with his wife came west to Buffalo, New York, where he followed the occupation of painter and glazier, until in 1836 the growing fame of Chicago induced him to visit and to settle in what was but a village of four thousand souls, although it had attained that population in but four years, from a population of sixty in 1831. Here he continued the prosecution of his trade until 1856, by which time Chicago had become indeed a great city and had attained a prominent and promising position among the cities of the lakes, and his business was prosperous in proportion to the growth of the city. In 1865 he removed his family to St. Charles, Kane county, Illinois, where he purchased a home and where his life work came to an untimely end September 26, 1860. Mrs. Sinclair still survives and occupies the home at St. Charles and although she has reached the ripe age of 87 years, is in the enjoyment of excellent health. She was the mother of twelve children of whom but three are now living. Henrietta, born December 26, 1830, died in youth; Louise, born December 27, 1832, still living with her mother; Martha, born May 26, 1834, died in youth; Mary Estelle, born November 29, 1835, died 1890; Lucy Jane, born September 13, 1837, died 1887; Henrietta Caroline, born August 5, 1839, is the widow of S. A. Irish, a lumberman of Chicago; Matilda, born June 19, 1841, Amelia, born May 14, 1843, and Samuel Lewis, born February 8, 1846, each died in infancy. George F. was born at No. 47 La Salle street, Chicago, November 20, 1847 (when his father was 47 years old); Frances Maria, born September 2, 1849, and Helen Sidonia, born August 3, 1851, died in early childhood.

George F. Sinclair, when but seventeen years of age, enlisted on May 13, 1864, in Company D, Thirteenth Illinois infantry volunteers, being honorably discharged October 25 of the same year, the certificate of which, although highly prized, was lost in the big fire in 1871, which destroyed many other valuables, difficult of replacement. This certificate was one of especial character issued by President Lincoln to the volunteers of Illinois, Ohio and Indiana, who responded to the last call for 100,000 men in the closing days of the war and was additional to the regular army discharge and hence esteemed of still greater value.

On the 1st of April, 1865, he embarked in the lumber business, taking the position of bookkeeper with Irish & Fuller (S. A. Irish and Henry M. Fuller) who were then engaged in a commission lumber business. Three years later (1868) Mr. Sinclair became a partner in the business, Mr. Fuller withdrawing, and the firm now became S. A. Irish & Co., and shortly after Mr. W. H. Bullen being admitted, the firm became Irish, Bullen & Co., and so continued in successful operation for eleven years, until January 1881, when Mr. Bullen withdrew and the firm again became S. A. Irish & Co., which, however, continued only until the March following when Mr. Irish died and Mr. Sinclair continued the business until January, 1882, when he was joined by Thomas G. Morris, and the firm of Sinclair, Morris & Co. was organized, Mr. H. C. Akeley being the "Co." of the firm. For several years this firm carried on one of the largest wholesale and commission lumber operations which has ever been carried on by any one firm in this country. In addition to large consignments from mills in various manufacturing sections, Mr. Sinclair was a large stockholder in the Grand Haven Lumber Co. of Grand Haven, Michigan, and also of the Roscommon Lumber Co. of Grand Haven; the extensive lumber production of each of which was handled by the firm with which he was connected at Chicago.

In 1885, in consequence of ill health, Mr. Sinclair withdrew from the firm, and arranging his business affairs so that he need feel no uneasiness, he, with his wife, took an extended journey through the southern states spending several weeks on the island of Cuba, returning through the mountains of Colorado. Two years thus spent in sightseeing and recuperation, happily restored his shattered health and in the fall of 1887 he organized the Heyman & Co. general house-furnishing company, of Grand Rapids, Mich., the firm occupying one block, 53-55-59 Canal street, which covered over one acre of space. In 1888 he organized the Grand Rapids Brass Co., the only concern in the United States which makes an exclusive business of the manufacturing of metal furniture trimmings, employing from one hundred and fifty to two hundred men. Of this company Mr. Sinclair was elected secretary and treasurer. Mr. Sinclair was married January 6, 1875, to Miss Mary Spoon, daughter of John Spoon, esq., a prominent lumberman, of the firm of Spoon & Thompson, Chicago, who died in 1891, his widow surviving, makes her home with her daughter and son-in-law, Mr. and Mrs. Sinclair at Grand Rapids. Mr. Sinclair has held high honors as a Free Mason, having twice filled the Oriental chair in Cleveland lodge No. 211 F. & A. M., Chicago, of which he is a life member. He is an unaffiliated member of Washington Chapter No. 43, R. A. M., and was knighted in Chicago commandery No. 19 K. T., but is now a member of De Molai commandery No. 5 of Grand Rapids; he was a member of Oriental consistory, Chicago, from which he demitted to DeWitt consistory, Grand Rapids; he is also a member of Saladin Temple A. A. O. M. S. of Grand Rapids.

Thomas Hefferan.—Reference to the historical chapters of this work will disclose the fact that saw milling on Grand river was inaugurated in 1827 by the Rev. Leonard Slater, a Baptist missionary, who built a small mill at Grand Rapids in that year, which was the main reliance of the settlers who from this time began to gather in this portion of the state of Michigan. In 1833-4 Luther Lincoln built a mill at Grand Rapids, which was located on a small branch or creek, which reached the main river at a point now occupied by Sweet's hotel. At this time Michigan was a wilderness, comparatively speaking, although emigration was rapidly increasing, from a better knowledge of the country being made known to the people of the east by those who had visited and settled in the much traduced state, and who returned to their former homes for a brief visit, or to bring out their families to the land selected as the future home. The mills above mentioned were very small, probably of no greater capacity than one thousand feet per day, having undershot wheels, and heavy gate saws. During the next ten years a number of small mills were built, but until the demand in Chicago was vastly increased through the opening in 1848 of the Illinois & Michigan canal, but little timber was required, although the aggregate receipts at Chicago had steadily increased from 30,000 feet in 1833 to four million and a half in 1840, twenty-two million in 1845, thirty-two million in 1847, and sixty million feet in 1848, and the bulk of this increased production came from mills on Grand river. During the eventful period of which we have spoken, the developers of the country in later years were being reared by hardworking but judicious parents, in a manner which should fit them for their life work of subduing the forests, while building up the prairies of the west, and making the western wilderness to blossom as the rose.

On the 28th day of July, 1831, Thomas Hefferan was born in Washington county, New York, his father being a prosperous brewer. Fire and the vicissitudes of business determined the parents of Thomas to seek a home in the west and in 1840 they settled in Barry county, Michigan, removing in 1846 to the Grand river valley, where the father died in 1849, and the mother in 1862. Thomas received a brief education in the common schools of the neighborhood where the family resided, until in 1848, being now seventeen years of age, he entered the employ of Dr. Timothy Eastman, who resided at a point in Ottawa county on the Grand river, since known as Eastmanville. The doctor was a farmer and logger as well as physician, and Thomas remained in his employ for three years, assisting in these occupations, and while thus employed attracted the attention of Galen Eastman, a son of the doctor, and a lumber merchant at Chicago, Illinois, who offered him a position in his lumber yard in that city, and with whom he remained in the capacity of yard foreman, salesman and general manager, until the panic of 1857 so depressed business that he decided in 1858 to return to Michigan, where he again continued in the employ of Galen Eastman, with whom he remained until January 1, 1865, having charge of the logging operations and general business of that gentleman. He now began business for himself, and for the next four years was engaged in the purchase and sale of pine timber lands, and of saw logs. In 1869 he purchased the saw mill at Eastmanville, built by Galen Eastman, which had gone through a process of evolution, such as was necessary to keep up with the spirit of the age, and was now a circular mill of 30,000 feet per day capacity. For twenty years Mr. Hefferan ran the mill, manufacturing during that period fully 100,000,000 feet of lumber, which found market principally at Chicago, Milwaukee and Racine via Grand Haven and including large quantities of hardwoods to Grand Rapids by the river. When in 1889 it became manifest that the forests would no longer respond to the insatiable demand for "more" Mr. Hefferan closed out his lumber business and removed his family to Grand Rapids, where he has since resided. In 1890 Mr. Hefferan assisted in the organization of the People's Savings Bank of Grand Rapids, with a capital of $100,000, of which he was elected a director, and chosen to fill the responsible position of president. How well this trust has been administered during the unprecedentedly stringent times from 1893 to 1896, is evidenced by the quarterly report of September 28, 1895, which shows a surplus of $15,000; undivided profits, $8,635.74; unpaid dividends, $60.00; commercial deposits, $171,820.66, and savings deposits of $541,533.96; with loans and discounts aggregating $658,332.60, and cash on hand of $168,371.68, or more than the twenty-five per cent usually considered necessary for the meeting of any emergency, a result which could have been attained only by the exercise of good business judgment.

Mr. Hefferan has not, however, wholly lost his love for pine trees, and is an extensive holder of pine lands in township 55 north, ranges 10 and 11 west, in the neighborhood of Two Rivers, Minnesota. In politics Mr. Hefferan is a Democrat, and although never personally aspiring to political honors, has on two occasions patriotically permitted the use of his name as the party candidate for State senator in the Twenty-first senatorial district, including the counties of Ottawa and Muskegon; in face of the fact that the senatorial district was hopelessly Republican. It was with no little satisfaction, however, that his friends found in the final count that Mr. Hefferan had largely reduced the adverse majorities of former years, owing no doubt to his personal popularity in the district which had been his residence for over forty years, and where he was esteemed for his manly qualities, and as an able and conscientious business man. Mr. Hefferan was married July 1, 1865, to Miss Amelia Eastman of Eastmanville and is blessed with two sons and a daughter—all of whom have grown to maturity, a comfort and honor to the later years of their honored parents. The elder son, George Hefferan, is engaged in the practice of law at Grand Rapids, while the younger, Thomas William, is a student graduate of the Grand Rapids high school, with Yale college in prospect. Mary is a student at Wellesly, Massachusetts. Mr. Hefferan still retains considerable pecuniary interest in Eastmanville, and has several excellent pieces of farming land in Ottawa county and elsewhere.

Here then is a record of a useful life and one which from young manhood has been devoted to the lumber interests of Michigan. Mr. Hefferan may be said to have (practically speaking) seen the rise and decay of the lumber industry of the state. In his youth a resident of what was but slightly removed from the condition of a wilderness, the farmer's boy has become the wealthy lumber manufacturer, and the honored banker. He has seen the log cabin give way to the neat and comfortable cottage, the village supplanted by the town, the wilderness transformed into populous cities, and the hut of the settler into elegant residences, occupied by wealthy and intelligent citizens. The hard benches of the log school houses have been supplanted by elegant desks, in superb modern brick structures, while churches, schools, academies and all the appliances of civilization crowd the territory where in his boyhood was found the wolf and the deer. The forests have fallen and from a supposedly illimitable extent, are almost extinct, ere yet the frosts of life's winter have left the snow of age upon his brow. What a life history. With what interest will it be regarded in the future by generations who will fail fully to comprehend the hardships and the toils of those whose history is that of the past half century, the history of the State of Michigan.

Don. J. Leathers.—Among the more important industries connected with the forestry of Michigan and the northwest, has been that of "land looking," and real estate dealing. It is not to be expected that a stranger should go into a new country, especially after that country has arrived at a fair degree of settlement, and judiciously determine and select for the investment of his capital, such descriptions of land as will give him the best returns. No more useful agency can be employed by investors (and this includes the older resident, as well as the stranger) than is presented by a class of men who have made the forests a study, and through personal investigation or the reports of tried and trusty agents, have obtained reliable knowledge of the location and character of desirable investments. Such men having established their reputation for reliability in information and for honorable dealing, have held an honored place in the ranks of those who have been interested in the forestry of Michigan. Of this class of men Don J. Leathers of Grand Rapids is a conspicuous example, having for many years been recognized as among the leading men in his branch of the business, a dealer in pine and other lands.

Mr. Leathers was born in Oneida county, New York, July 28, 1844, but his father, Samuel Leathers, who was a native of that state, having removed to Michigan and settled in Kent county when his little son was but six months of age, it is scarcely a stretch of the truth to set Mr. Leathers down as a native to the manor born. The father Samuel is yet living at a ripe age at Rockford in Kent county, honored by the neighbors and friends of a half century. He was a blacksmith by trade and followed it with profit for many years. Don J. attended the common school of his neighborhood until at the age of eleven, he concluded that he would see what the world was made of, and running away from school and home he took a position as water and errand boy in a logging camp and thus commenced that practical education which has made him a success as a lumberman and endowed him with that knowledge of the forest, its local surroundings and general character, which has been found of so great advantage and benefit to a vast clientage of customers. Following camp life and various other branches of the lumber business until he was seventeen years of age, he patriotically enlisted in the celebrated regiment of Michigan engineers, whose reputation became world-wide during the rebellion, and was with the army of the Cumberland for four years and four months, engaged in the engineering duty which fell to that gallant corps, and the accomplishment of which won a well-merited renown. Mr. Leathers took part in many engagements, including Mill Springs, and Perryville, Kentucky; La Vergne, Tennesee; Chattanooga, Lookout Mountain, Bentonville, North Carolina; and many of less note. For the last year of the service he was in the command of General O. M. Poe at General Sherman's headquarters, an officer who was recognized then as for many years later as one of the leading engineers of the country, being soon after the war, chief of the governmental troops of engineers, a position which he held with honor until his death in 1895. During the war Mr. Leathers was one of but three men who were never left behind, when there was any important sally or investigation to be made. With the close of the war, having attained his majority and reaped a wide experience, he returned to Michigan and resumed the lumber business in the capacity of a log scaler during the winters, and in the employ of several large operators in the lumber business, last among whom was William T. Powers of Grand Rapids. In 1874 he began business for himself, his experience amply fitting him for buying and selling timber lands or stumpage, fully understanding as he did all the circumstances and conditions requisite for making profitable investments, and being well informed as to those tracts and locations, which were the most available for the individual customer, and it is needless to add that it did not take long for either purchaser or seller to discover the advantage of submitting their wants to his judgment. While pine lands have in the past been a specialty in the trade of Mr. Leathers, the growing demand for hardwoods has not been lost sight of.

Among the notable transactions which have been negotiated by Mr. Leathers, may be named sales to the Thayer Lumber Co., and the West Michigan Lumber Co., aggregating over two millions of dollars, as also large tracts to the late S. N. Wilcox, D. H. Walters, Torrent & Ducey, Hall & Watson, Ryerson, Hills & Co., and Ferry, Dowling & Co., all well known and successful lumbermen of the years gone by. The knowledge possessed by Mr. Leathers from personal investigation or from the reports of trusted agents of the lands of Michigan, Wisconsin, Minnesota and the south is probably not excelled by that of another man in the country. But while noted for his knowledge of pine land conditions, and for the extent of his transactions in lands and stumpage, Mr. Leathers has also a reputation as a practical lumberman and manufacturer, having lumbered largely on the Rogue and Flat rivers, tributaries of Grand river, and at other localities in the state. He has always retained his residence in Kent county, and for the past twenty-five years has resided at Grand Rapids. He has for many years been interested in the

[illegible] Jr & Co Chicago.

Don J. Leathers

finer breeding of horses, and since 1880 has had a farm in the famous Blue Grass region of Kentucky, where he has made a specialty of the breeding of trotting stock. In 1889 he paid the large price of $7,500 for the yearling trotting stallion "Monbars," which was the largest price ever paid for a colt of that age to that time, but was justified in his judgment of its value when, as a two-year-old, the colt took $15,000 in purses, with a record of 2:16¼, which was the stallion record of the world for two-year-olds, lowering it a year later to 2:11¾, which is the world's record for three-year-olds. Later Mr. Leathers became the owner of the celebrated trotting mare "Pixley," whose record of 2:08¼ in 1893 at Chicago was in the free for all race with "Alex," where she won four heats, although the race was given to Alex. Mr. Leathers went out of this line of business in 1895. He has found time to attend to the duties of a director of the People's Saving Bank of Grand Rapids, and is a stockholder in many of the leading industrial enterprises of the city. He is a member of Custer post No. 6, G. A. R.; is a Republican in politics and has for many years been esteemed an active force in the politics of the state. He was appointed official messenger of the State Electoral college to convey official returns to Washington when Harrison was elected president. Mr. Leathers is now interested with a syndicate of men who are building the Tallahassee & South Eastern railroad from Tallahassee to Ocala, Fla., and from Tallahassee to St. Joseph's Bay on the Gulf; also from Tallahassee to Thomasville, Ga.; the building of which roads earns a land grant of ten thousand acres to the mile. Mr. Leathers is now selecting these lands which will be of the best of cypress and long leaf pine and large portions of them are underlaid with phosphate. It is a notable fact that many of the railroads which now environ the nation, have been largely promoted and carried to successful completion by the lumbermen of the northwest.

Few men are more extensively known throughout the state, and none held in higher esteem by all who have come in intimate contact with him either in a business or social way.

B. R. Thompson & Co.—Some men are possessed of such energy and activity that they are not content to do business in the same manner as their progenitors or competitors, but push zealously on and make every effort to be classed among the foremost in the ranks of the industry to which they devote their attention. Such has been the business record of B. R. Thompson, for although he has been engaged in the lumber business at Grand Rapids, Michigan, only since September, 1893, his name has become a familiar one in lumbering circles. He and his partner, J. H. Bonnell, are doing a wholesale business and although they make a specialty of hardwoods they also handle pine. They have a shipping yard on the C. & W. M. Railroad and another on the G. R. & I. railroad, and while they do not themselves manufacture lumber, they buy the cut of several large mills, from which much of their lumber is directly shipped, their yards at Grand Rapids being merely for the accommodation of local dealers and manufacturers. They handle about 10,000,000 feet of lumber per year, mostly hardwood, and are succeeding as they deserve to do, as wide-awake, pushing and practical lumbermen. They have gained a large trade in Michigan, Indiana, Ohio and other states, and besides dealing in the native woods of these states, handle large consignments of Arkansas, Kentucky and Wisconsin lumber, doing a wholesale business.

Mr. Thompson was born in Clearfield county, Pennsylvania, February 5, 1853, a son of S. W. Thompson, who was a lumberman of Pennsylvania for many years and now resides in Oregon engaged in the same business. He was a Pennsylvanian, born December 12, 1819, and was reared to a knowledge of the lumber business, as his father was one of the early lumbermen of Western Pennsylvania.

In 1867 he came to Michigan and until his removal to Oregon in 1875 he operated a saw mill on Fife lake, under the firm name of W. S. Thompson & Son. The latter had acquired a thorough knowledge of the business under his father and when but a lad of sixteen years erected a small mill on Will's creek in Coshocton county, Ohio, and later had a mill at Coshocton, in the same county, both of which he operated with considerable success. After his father's removal to Oregon he continued in business alone, but in 1879 became associated with Dunhard, Peterson & Co., with whom he was connected until 1890, during which time they made a business location at Grand Rapids. At the above mentioned date he formed a partnership with Julian Houseman, but their connection terminated by the death of the latter, and he was then connected for some time with Z. V. Cheney, and was later with W. O. Hugart up to the time the Thompson & Bonnell Lumber Co. was formed. Mr. Thompson is an expert lumberman, thoroughly informed in every detail of the business. He has always been a Democrat in politics, and is a member of lodge No. 406 of the I. O. O. F.

J. H. Bonnell of the above mentioned firm, was born in Grand Rapids May 2, 1864, a son of J. C. Bonnell, general manager for the Standard Oil Co. of West Michigan. J. H. Bonnell was educated in the high school of Jackson and in 1882, when eighteen years of age, began working for the Standard Oil Co., and ten years later was made manager. At the age of twenty-six he was made vice-president of the Fifth National Bank of Grand Rapids, which office he still holds. He resigned his office with the Standard Oil Co. to his father, who now fills it. He is a fine, clear-headed man of business and makes a success of everything he undertakes. In his political views he is a Republican.

Cyrus Wice, who is well known to the lumber fraternity of western Michigan, was born at Wooster, Wayne county, Ohio, November 2d, 1848. He was the son of George Wice and Susan Gensleman, both natives of Wayne county, both parents dying when Cyrus was but a lad, leaving three helpless orphans to the sympathies of a cold and heartless world. Cyrus after the death of his mother entered the employ of James McCloud, a dealer in horses at Bryan, Ohio, who was at this time (1863) engaged in buying horses for the use of the army, and draft horses for the lumbermen of Michigan, and with whom Cyrus remained until at the age of seventeen, when he engaged in teaming for a year, and then put his knowledge of horses to good account by entering the employ of a merchant, who commissioned him to purchase horses suitable for the lumber woods, which he disposed of at Muskegon and other points in the Michigan lumber districts. In this and kindred occupations Mr. Wice continued until in the fall of 1869 he entered the employ of Winsor & Son, lumber manufacturers at Sheridan, Michigan, where he worked in various capacities about the saw mill, from slab burning to lath making and lumber piling, up to edging and "setting," and later engaged with Brown & Co., of Sheridan, in the capacity of edger and later as setter, becoming proficient in all the work of the mill to filing and as occasion demanded, running the engine. After two years thus spent, Mr. Wice accepted the position of second engineer with the Fox Lumber Company. At the age of twenty years, the young man had become so proficient in the various branches of his calling that he was earning three dollars per day. During the following winter he, in company with a young friend, took a contract to unload logs at the roll way of Hayes & Spalding, and the two took the position in which five men had heretofore been found necessary. The following spring he was on the drive of the White Fish creek and of Flat river, breaking roll ways and wading in icy water, being compelled to sleep at night in the wet clothes which he had worn through the day and for such service obtaining pay at the rate of four dollars per day and board, such as it was, such sleep as could be secured being found by a camp fire in the open air, or perchance in a hastily improvised hut of boughs, and a bed of hemlock brush if good luck brought the army of drivers to spots where even that poor protection was possible. Upon the Flat river drive of that spring between 400 and 500 men started, of whom but eight of the original crew saw the drive through to the boom. In the winter of 1871 he engaged with Hopkins Bros. to take charge of their lumber camps on the Big Manistee river, the supplies for which must be "toted" from Traverse City, forty-five miles distant; the camp employed 65 men, 18 yoke of cattle, 23 span of horses and one span of mules, the output of the winter being about ten million feet. This was the first camp built in Wexford county and as the Manistee river required cleaning, Mr. Wice took the job of clearing out the obstructions for a distance of forty-five miles, and in December took the job of running the logs to the mill at Manistee. In 1873 G. W. Hopkins purchased an interest in an old saw mill on Bear Lake, Manistee county, and with it a large tract of pine timber from Theodore Tilson, and Mr. Wice became a member of the firm of Hopkins, Tilson & Wice. About three years later Mr. Wice sold his interest to the Hopkins Bros. by an exchange for a body of pine lands on the Big Manistee, in the counties of Wexford and Kalaska, and in these Mr. C. Ruggles also became interested. In 1876 Mr. Wice took a vacation after several years of hard work, and visited Europe, returning in 1877, when he purchased a large tract of timber lands from his late partner Ruggles, and commenced logging on his individual account, with a camp of seventy-five men on the Big Manistee in Manistee county, with an output for the winter of 10,000,000 feet of white and norway pine. This was a year long to be remembered by the lumbermen, as the markets fell so that Mr. Wice sold his stock for but $6.50 per thousand, entailing a loss of no less than $22,000 on the winter's operations.

From his earliest connection with the saw mill industry, Mr. Wice had done more or less "land looking" and was accounted an expert at estimating the standing timber of a given tract, and when in 1878 he found himself crippled financially, he at once took up the profession, and entered the employ of the Grand Rapids Chair Co. as their purchaser of logs and lumber, and a year later engaged with Cartier & Filer as their land looker and walking foreman of their different camps; and has since pursued that calling, his duties calling him to all portions of the country from British America on the north to the Gulf on the south, and from Pennsylvania on the east to the Colorado on the west. In 1887 he located 63,000 acres in Mississippi, the minutes of which were purchased by C. T. Hills, Esq., of Ryerson & Hills Lumber Company, and in the fall of that year contracted with Swan & Smith to lumber 20,000,000 feet of logs, since which time he has engaged almost exclusively in land looking. He was married November 29th, 1888, to Miss Fannie Marsh Carrier of Benzonia, Michigan, and two girls and one boy have resulted from the union. Mr. Wice is a Republican in politics, but of the liberal class, who think more of the fitness of a man for the office, than of his past partizanship.

Dennis Brothers.—In the evolution of the lumber trade of Michigan, in the exhaustion of the vast forests of pine, came a higher appreciation of the hitherto but lightly esteemed if not despised, hard woods, with which nearly all sections of the state were forested. Where so late as 1880 there was scarcely to be found a merchant who made a specialty of hard woods, there are at the present time so large a number, as bids fair soon to constitute a preponderating influence in the trade.

Among the enterprising firms who make this branch of the lumber business a specialty, we may name that of Dennis Brothers, of Grand Rapids, consisting of Alvin L. and Elmer E. Dennis, who established their present business in 1890, and have become prominent among the hardwood manufacturers and dealers of Michigan. In connection with their business the firm has mills for the manufacture of hardwood at several points in the state, one of 15,000 feet per day capacity being located at Roy on the line of the Grand Rapids & Indiana railroad, with a large tract of hardwood lands conveniently adjacent, having also one band and two circular saw mills at Manton, Wexford county, with extensive tracts of the excellent hardwood timber for which this region is renowned. They have also about two thousand acres of hardwood timber near Almira in Benzie county, in the very heart of the rich timber belt of northwestern Michigan.

The firm handles about 20,000,000 feet yearly, of their own manufacture, combined with large amounts purchased from other manufacturers in Michigan, Ohio, Indiana and the Southern States, finding ample market among the furniture manufacturers and other consumers of native hardwoods throughout the nation, shipping direct from the point of manufacture, as they do not maintain a yard at Grand Rapids.

Alvin L. Dennis, the senior member of the firm, was born at Macomb county, Michigan, May 22d, 1855, and was the son of Leonard L. Dennis, whose father, Henry Dennis, removed from the state of New York to Michigan more than half a century ago. The family comes from Revolutionary stock, pioneers in the settlement of the nation. Leonard L. Dennis settled in Macomb county at an early day, and in 1857 removed to Kent county, locating at Grandville, where he is still living at an advanced age. Alvin was given the benefit of the common schools of the neighborhood, interspersed with the laborious work of his father's farm, until attaining the age of eighteen years he entered the employ of Barnhart & Swart, lumbermen, remaining with them and with their successors until 1890, gaining a thorough acquaintance with the lumber business in all of its various branches. In 1887 Mr. Dennis took up his residence in Grand Rapids, which has since been his home, and in 1890 became associated with his brother Elmer E., in forming the firm of Dennis Brothers, which, by reason of energy, honesty of dealing and strict attention to the business, has gained the reputation of being one of the most reliable and enterprising business houses of Western Michigan.

Mr. Dennis was married to Miss Nettie I. Thomas and four daughters, Edith, Ina, Ethel and Hazel have blessed the union. He is a member of Eureka Lodge No. 2, Knights of Pythias of Grand Rapids, and in politics is a Republican. In business circles he is esteemed as a far-seeing, honorable and upright man of enterprise and push; while in social circles he possesses the confidence and esteem of the vast number of neighbors, friends and associates with whom he is daily brought in contact.

Elmer E. Dennis, the junior member of the firm of Dennis Brothers, is a native of Kent county, Michigan, and was born December 28th, 1862. His education was that of the common schools of Grandville, from which he graduated to the lumber business, in which he was employed for many years, and where he became proficient in all the details of the business, and in 1890 joined his brother Alvin in the institution of the firm of Dennis Brothers, at Grand Rapids, making a specialty of the manufacture as well as the purchase and sale of the different varieties of hardwood lumber which in recent years have gained an enviable reputation in house finish, and in the extent of their adaptation for furniture manufacture have given to the city of Grand Rapids a most enviable reputation throughout the entire world.

Mr. Dennis is the outside man of the firm, being an excellent judge of the different varieties and qualities of the products of the saw mill, and enjoying the reputation of being one of the best business men in the state; he is a large purchaser of outside stocks of lumber as well as being par excellence the salesman of the firm, and in these capacities enjoys an enviable reputation for efficiency, reliability and fair dealing. He was married to Miss Cora Finch, who died, leaving one son to mourn with him the loss of a loving wife and tender mother.

Mr. Dennis is a member of the Masonic fraternity of Grand Rapids, including the chapter of R. A. M. and Commandery K. T. He is a Republican in politics, and a man who enjoys the esteem and confidence of a large circle of friends, both in business and social circles.

George B. Dunton.—The lumber interests of Michigan has among its votaries George B. Dunton, who is one of the active, enterprising, and consequently, successful young business men of Grand Rapids, Mich. It may be said that he was reared to the business in which he is now engaged, for his father, L. G. Dunton, was a lumberman before him and followed this occupation in the state of New York prior to his removal to Michigan in 1861. The first three or four years were spent in Lapinville, where he was very prosperous as a lumberman, but he then removed to Grand Rapids for the purpose of educating his children. A few years later he turned his attention to merchandising, which he followed for twenty years in that city, but since that time he has practically retired from the active duties of life, and after the burden and heat of the day, enjoys a well earned rest. He has a beautiful summer home on Grand river and a fine winter residence in Grand Rapids. He is a well known man in this section, for his long and honorable business career could not fail to win him prominence. George B. Dunton was born in New York State, and is one of the two sons (John C. and George B.) of his parents. The public schools afforded him a good education and he graduated from the Grand Rapids high school. When a lad he passed the examination for West Point, and was appointed by the help of Hon. Zack Chandler to a cadetship, but his father objected to his becoming a soldier, no doubt seeing that he was well fitted for a business life. George, at that time, was much disappointed and reluctantly took up a mercantile career, which eventually gave place to lumbering, which he found more to his taste. He made a trip to the southern part of Michigan, purchased a tract of timber land and erected thereon a saw mill, which he operated for the purpose of getting a practical knowledge of the business, and after years spent in this manner, he has the reputation of being one of the most expert lumbermen in the state. He has operated many mills, has passed much time in logging camps and is most thoroughly posted in all departments of the lumberman's trade. He has familiarized himself with much of the lumber district of the northern part of the state and several years ago became interested in a large tract of land there, for the utilizing of which he built a line of railroad. He is still interested in large tracts of hard wood timber land and in 1892 he and his father established the present firm of L. G. Dunton & Co., with office and yards at 57 Seventh street, Grand Rapids, where they are doing an extended wholesale hardwood business with markets for the finer grades as far east as Boston, and a large trade with the factories in Michigan, Indiana Ohio and other states. They own a large plant at Thompsonville, but the most of their stock is the cut of other mills and amounts to about 20,000,000 feet annually. Mr. Dunton's sympathies have always been with the Republican party. He is a member of the Masonic fraternity, and, with his wife, who was formerly Miss Mattie Thoengton of Romeo, Mich., is an attendant of the Methodist church. They have two sons, George B. and Charles C.

Jacob Reelman.—In no part of the world is the lumbering industry of greater importance than in the United States, nor in any other part of the world can there be found more beautiful or substantially built homes and buildings of all descriptions. This is in a great measure due to the fine building materials which can be so readily obtained and at such reasonable figures. One of the foremost lumber manufacturers of Grand Rapids, Mich., is Jacob Reelman, who is engaged in a general planing mill business and in the manufacture of finished lumber, for interior work, besides shingles, bed-slats, lath, etc. He erected the planing mill in 1886, which he has operated very successfully ever since, but prior to that time he worked for others. His success is not to be wondered at when it is known that he was born in Germany—the land of thrift and industry. His birth occurred July 10, 1845, and when about six years of age he was brought to this country by his father, Peter Reelman, and until he was twenty-five years of age his home was in New York State. As he grew to maturity he worked in various lumber yards and mills, and this practical experience made him familiar with every detail of the work. Upon his removal to Grand Rapids in 1870, he entered the employ of Winegar & Remington, and was later employed in the factory of D. H. Waters, where he was foreman of the bending works for ten years. Since starting in business for himself he has been universally successful and handles a large amount of lumber annually. He is the owner of a good business block on Grandville avenue and also his pleasant home at No. 311 of that street, together with property on Godfrey avenue, Underhill street, Ramsey street, and as well lots in other parts of the city. He was married to Miss Carrie Eddinger and they have four children: Julia, Carl, Dora and George. They are attendants of the South Memorial Congregational church; politically he is a Republican.

Otis Russell Johnson.—Reference is made in connection with the several notes in other chapters regarding Saugatuck, Michigan, of the firm of O. R. Johnson & Co., which in 1857 consisted of O. R. Johnson and Francis B. Stockbridge, (later for many years one of Michigan's honored Senators in the Congress of the United States).

Otis R. Johnson was a native of Winthrop, Kennebec county, Maine, where he was born April 3d, 1815, his father being one of three brothers, Englishmen who came to America one hundred years before, (1716) and partook of the hardships and privations incident to pioneer life through Colonial and Revolutionary days preceding the establishment of the young nation, in the stirring events attending which, they took a by no means unimportant part.

Otis R. was the last surviving son of the family, and spent his boyhood days in the town where he was born, enjoying the benefits of the district school until at the age of eleven years he commenced a seven years' apprenticeship at the shoemaker's bench, a trade which he followed as a journeyman until 1833, when he opened a shop at Camden, Maine, and worked up an excellent business which he conducted for several years. In 1844 he determined to try his fortunes in the now developing west, and located in the growing young city of Chicago, where, in connection with Andrew S. Wells, he engaged in the shoe and leather business, the firm being Wells & Johnson. Four years later he removed to Ganges in Alleghan county, Michigan, where for five years he operated a tannery. During this time he became impressed with the growing extent and importance of the lumber business which was by this time assuming a position of great importance, and in 1855 he commenced to manufacture and to deal in logs and lumber, a business which absorbed the energies of his future life. In 1857 he became associated with Mr. Stockbridge, forming a connection which continued to exist until the death of his partner in 1896, and the firm of O. R. Johnson & Co. built a saw mill at Saugatuck, Michigan, near the mouth of the Kalamazoo river, upon the banks of which stream were fine forests of an excellent quality of pine timber, interspersed with hardwoods. The mill was a mulay, of the type common to the day, with a cutting capacity of about 5,000 feet per day. The mill was soon after changed to a circular, whose capacity doubled the daily output, the lack of edging facilities which were as yet undeveloped, not having demonstrated the full capacity of this more modern style of mill. As improvements were introduced into the saw mill world, the firm were not slow to adopt them and with frequent improvements the cut was increased, until in 1874 (the first year in which statistics are available), the reported cut was 11,000,000 feet. In 1867 W. D. Houghteling became interested in the company, representing it in Chicago, and in 1868 Jesse Spalding and H. H. Porter of Chicago, in connection with W. D. Houghteling and Messrs. Stockbridge and Johnson, and the firm of Spalding, Houghteling & Johnson was established, purchasing the business of Spalding & Porter, with saw mills at Marinette, Wisconsin, and a wholesale lumber yard at Chicago; this company was incorporated in 1873 as the Menominee River Lumber Company.

Mr. Johnson continued operations at Saugatuck until about 1883, when the timber supply of that district being virtually exhausted, he turned his attention to the operations at Marinette and other localities in which he had become interested. During the period of his operations at Saugatuck, the gross total of his lumber product fell but little short of 225,000,000 feet, being the principal output of the river whose gross output first and last, according to the best information attainable, was not far from

300,000,000 feet. In woods and mill the company employed an average of 160 hands.

In 1875 in connection with Messrs. Stockbridge and Houghteling, he organized the Mackinaw Lumber Company, and also the Black River Lumber Company, with mills at St. Ignace and Black river, on the south shore of the Upper Peninsula adjacent to Mackinaw Island, where operations were carried on for many years, the last statistical record of the Mackinaw Lumber Company being for the cut of 1888, that of the Black River Lumber Company ceasing in 1892, at which former date the two companies had completed a record of 203,872,724 feet of lumber. These figures give but a partial idea of the operations in which Mr. Johnson had engaged as a manufacturer of lumber, while they by no means convey a conception of his interests in other localities. It is safe to say that from 1855 to 1897, when he died, that he was interested in the manufacture of fully one billion feet of sawed lumber, besides vast quantities of shingles and lath.

Mr. Johnson was a man of broad conceptions, and fully realized the extent to which the lumber interests were identified with the progress and prosperity of the nation; it is not strange, therefore, that he should become heavily interested not only in the timber lands of Michigan and Wisconsin, but that the redwoods of California should attract his attention as presenting favorable fields for investment. As a public spirited citizen, he was interested in the local industries of the city of Racine, where he resided during the later years of his life, and was president of the Fish Brothers Wagon Company of that city, as also of the Racine Basket Company; he was also president of the Union National Bank of Racine, and intimately connected with other business enterprises of a similar nature.

Mr. Johnson was married to Emily Wells, and had six children, four sons and two daughters, all of whom survive. He died March 6th, 1896, at the ripe age of eighty years, having lived a long and useful life, in which he maintained the confidence and esteem of all who knew him. His experience as a lumberman embraced practically the beginning and end of the vast lumber industry of the northwest, during the entire period of which, he was one of the most active participators in its development.

Major Amasa Brown Watson of Grand Rapids.—Among the prominent citizens whom Michigan has been called upon to mourn during the past few years none will be more genuinely missed than he whose name occurs above; such men as Major Watson have contributed much toward the material prosperity of the State, and their services are entitled to honorable recognition and praise along with the achievements of statesmen and authors, who have labored in other fields. His record, without a blemish or flaw, lies open to the sight of all men, while it was the privilege of but those who touched him most intimately to fully know the great heart and strong nature of the man. As the falling of the sturdy oak that has witnessed the growth to maturity of surrounding forest trees, leaves a vacant place which none can fill, so the loss of a man like the subject of this sketch deprives family and associates of a grand nature, within whose beneficent shadow it was good for all to dwell.

Major Watson was born at Worcester, Washington county, Vermont, February 27, 1826. His parents were Oliver and Ester (Brown) Watson, and in his youth he received such educational advantages as were afforded by the district school and village academy. Even while a boy, the traits that distinguished him in after life are said to have been strongly marked; and at an early age, ambition urged him to leave the parental roof for the opportunities of the wider world, and to seek the fortune that there awaited him. Accordingly we find him in Glens Falls, New York, where he acquired a taste for the lumbering industry, which proved to be the great occupation of his life.

Endowed with good health, keen business ability, and of strictly moral principles, here he made substantial and trusty friends, who saw in him a capacity for managing larger interests, which they were developing further west, so at the age of twenty-seven, he went to Newaygo, Michigan, where more extensive lumbering operations were being undertaken, and in June 1853 participated in the organization of the Newaygo Lumber Company in which he represented eastern capital. Pine lands were purchased in large tracts, a saw mill was erected, and the company soon became one of the most extensive lumbering concerns in the west. The outbreak of the civil war found Mr. Watson, like hosts of others, engaged with business projects, but the rising tide of excitement and patriotism soon carried him into his country's service, and on August 19, 1861, he was commissioned Major of the Eighth Regiment, Michigan Volunteer Infantry, and assigned to duty in General W. T. Sherman's expedition to Port Royal, South Carolina; the regiment participated in some very severe engagements. At the battle of Coosaw Ferry, South Carolina, which took place on New Year's day, 1862, the Seventy-ninth New York Regiment had reached the ferry without a contest; but when the Eighth Michigan marched toward the same point, a field battery of two guns opened a brisk fire of shells upon them; the regiment kept on their march, however, until two men had been wounded by the bursting of the shells, when, having reached their front, the first and tenth companies (A and B) were deployed as skirmishers and ordered to charge the battery; these were followed by company F, the whole under command of Major Watson. The men advanced steadily, and with perfect coolness, against a constant fire of shell, which burst continually among them, but without in the least checking their advance. They approached so near that it was easy to hear the voices of the rebel officers, while it was impossible to see the foe. Thus being warned by the commands overheard, the boys would drop to allow the shells to pass over them, and then fire; and when a hand-to-hand conflict became almost imminent the Twelfth South Carolina Infantry sprang out on the right and left of the artillery, and poured in a strong volley of musketry along the line, Major Watson being one of the first to be wounded, receiving a ball through the thigh; he was removed to an adjacent farm-house, where his wound was dressed by Dr. R. B. Shank, the regimental surgeon; good health and manly pluck worked wonders with the resolute Major, and he was soon able to be removed to his home in Michigan. Upon his recovery, he reported for duty, and participated in the battle of James Island, June 16, 1862, where his horse was shot in the neck and instantly killed, but the more fortunate rider escaped unharmed. On September 10, 1862, he resigned his commission and was honorably discharged; soon after, he again became interested in the lumbering business, by purchasing an interest in a mill at Muskegon; he took charge of the sales of the manufactured product, and, for this purpose removed his family to Chicago, where they were guests at the Palmer House during the great fire, but happily escaped without serious loss.

The Major had been well known at Grand Rapids in business circles since first coming to Michigan, and on November 14, 1873, he located permanently in that city. In 1881 he disposed of his lumbering interests at Muskegon, and of his pine lands in Michigan, thus retiring from an occupation which had proved eminently successful, yet a business career had become so thoroughly a part of his life that he could not long remain inactive and consequently he soon invested largely in southern pine lands, confining his purchases to Louisiana and Mississippi. In 1882 and 1883 he erected the fine residence on the southeast corner of Fulton and Sheldon streets, one of the most beautiful in the State, and on the first Christmas day spent by the family in the new home, he presented it as a Christmas gift to his wife. He also became interested in the development of the manufacturing interests of Grand Rapids, in which he utilized his business generalship and large fortune to good advantage. Many of these owe their success in a large measure to the impetus they received from the fertile brain and large faith of Major Watson. His connection with the banking interests of the "Valley City" was also of an enduring and beneficial nature. He was one of the chief moving spirits in bringing the Fourth National Bank into existence, and was a member of its first board of directors, and for several years its president. He was also a stockholder and member of the board of directors of the Kent County Savings Bank. The wise counsel, good judgment, and far-seeing financial vision of Major Watson were ever at the service of these institutions, and his personal reputation was such as to inspire public confidence in them. He was also extensively interested in many other enterprises, notably the Grand Rapids Street Railway company, of which he was vice-president and a director at the time of his decease; he was a large stockholder in the Chicago, Kalamazoo & Saginaw Railroad Company, and one of its board of directors, president and a director of the Grand Rapids Brush Company, treasurer of the Grand Rapids Fire Insurance Company, of which he was also a director; a stockholder and director in the Grand Rapids Electric Light and Power Company, and had large interests in two of the local furniture companies for which Grand Rapids has become famous. These institutions and industries paid suitable tributes to his worth and memory.

Major Watson had always been a Republican and a firm believer in a tariff for the protection of American industries; with him it was not merely an inherited belief, but a thought-out conclusion as the result of personal examination and business experience. He was one of those who held that every business man should exercise the right influence upon the conduct of civil affairs, and not stand aloof and deplore public evils, while doing nothing to prevent or remove them. As a matter of right and duty, he believed in personal participation in all important political campaigns, local as well as State and National. For this reason he was always active in political affairs, yet not because of any personal aspirations. Indeed every suggestion in that direction from the party leaders was met with his firm refusal, since he had no desire to hold public office, although the positions offered were of an exalted character, such as Mayor, Governor, and United States Senator, nominations to which were equivalent to an election. He preferred to serve in the ranks; he was, however, called upon to serve his party in several important instances, which he could not well decline; he was elected a delegate to the National Republican convention at Cincinnati in 1876, where he labored earnestly for the nomination of Hon. James G. Blaine; yet, when Governor Hayes was announced as the successful candidate, was among the first to pledge the support of Michigan. He was also a delegate to the National convention of 1880 at Chicago, where he again worked diligently for Blaine, but cheerfully accepted Garfield as the standard-bearer. The National convention of 1888 again found him a delegate, but this time Michigan had a candidate for the presidency in General Russell A. Alger, who had no more tireless worker in his behalf than Major Watson; the Republicans of Michigan indeed lost a leader by the death of this patriotic and faithful member of the party; perhaps the following resolution adopted by the Kent County Republican Club, upon his demise, may well be taken to voice the sentiment of the party in the State.

> "Resolved, That in the death of its first president, this club has lost a faithful and efficient officer, whose wise counsel and generous services have been of inestimable value to this organization; that we will always cherish a grateful recollection of his life so unselfishly devoted to the principles and success of the Republican party; that while high honors and official places were at all times open to him, with a rare self-abnegation he labored only for the advancement of others, that his warm patriotic heart was full of impulses prompted only by love of country, that he was a tower of strength to the Republican party, and to the cause of good government; that he has left the enduring record of a useful and honorable life, and that a fragrant and beautiful memory will always be associated in our hearts with the patriotic citizen, the warm hearted friend, the true American, Amasa B. Watson."

On December 30, 1886, Major Watson became a companion of the first class of the Michigan Com-

A B Watson

mandery of the military order of the Loyal Legion of the United States, the only order to which he ever became attached. The following resolutions were sent to the family at the time of his death:

Military Order of the Loyal Legion of the United States—Commandery of the State of Michigan.
Circular No. 13.
Series 1888.
Whole No. 47.

IN MEMORIAM.

Amasa B. Watson.
Major 8th Regiment Michigan Volunteer Infantry.
Died at Grand Rapids, Michigan, Sept. 18, 1888.

Headquarters Commandery of the State of Michigan.
Detroit, Michigan, October 15, 1888.

Read at a stated meeting of the Commandery, October 3, 1888.

Amasa B. Watson, Major 8th Regiment Michigan Volunteer Infantry, August 19, 1861.

Wounded in action at Port Royal, S. C., January 1, 1862. Resigned September 10, 1862, and honorably discharged. Born February 27, 1826. Died September 18, 1888. A companion of the first class of the Military Order of the Loyal Legion, Michigan Commandery, December 30, 1886.

To the Michigan Commandery Military Order of the Loyal Legion of the United States:

Commandery and Companions, Your committee designated to prepare suitable resolutions pertaining to the death of our late companion, Major Amasa B. Watson, respectfully present the following report:

The membership of our Commandery has again been broken, another honored name transferred from the army of the living, to the ever lengthening roll of those already gone to join the invisible post beyond. In obedience to a Commander greater than any who have led us from victory to victory, one of our esteemed companions, Major A. B. Watson, has been mustered into that "greater army," which for multitude no man can number.

Peacefully he sleeps beneath "the low green tents, whose curtains never swing out," the sentinels of heaven standing body guard around him until the sound of reveille.

Expressive of our own sorrow and alike appreciative of the sterling qualities of our friend, we offer the following resolutions:

Resolved, That in this sudden bereavement, we as companions, accord our testimony as to his unqualified excellence of character, whose sympathy of heart, and strength of purpose, made him the friend of all.

For these he was revered by a community, and mourned by us, his associates.

Resolved, That not alone by us is this affliction realized, but a deeper grief has fallen upon those bound by fonder ties than ours of companionship, and to that sorrowing family we extend our heartfelt sympathies.

Resolved, That this Commandery offer to the family their sincere condolence, and that a copy of this report be forwarded to them.

B. R. PIERCE,
Brevt. Major Gen'l U. S. Vols.
G. K. JOHNSON,
Brevt. Lieut. Col. U. S. Vols.
CHAS. W. EATON,
Captain U. S. Vols.

By Command of
Brevt. Brig.-General Henry B. Clitz, U. S. A.
Commander.
Geo. W. Chandler, Brevt. Major, U. S. Vols.
Recorder.

Official. G. W. CHANDLER,
Recorder.

Major Watson had been a friend to every movement having for its object the care of veteran soldiers, and their destitute families. He was, therefore, one of the prime movers in the establishment of the Michigan Soldiers' Home, and naturally took great pride in having it located adjacent to his favorite city, serving as chairman of the finance committee which made the purchase of the site; after his death, a new G. A. R. post, bearing his name, was mustered in at Grand Rapids, and later a Woman's Relief Corps was organized as auxiliary thereto.

On October 7, 1856, Major Watson was married at Newaygo, Michigan, to Miss Martha A. Brooks, daughter of John A. and Lucina (Parsons) Brooks, of Newaygo, by Rev. Courtney Smith of Grand Rapids. No children came of this union, but upon the death of Mrs. William J. Mead, (Mrs. Watson's youngest sister) August 11, 1873, Major and Mrs. Watson adopted her four small children, whose names and ages were as follows, viz: John A. Brooks Mead, six years; James Andrew, five years; Julia Agnes, three years, and William Watson, five days; the father of the children died in less than three months after his wife, and the children were greatly beloved by their foster-parents; in a letter to his sister just prior to his own death, Major Watson in referring to the children said: "They are all model children that a king might be proud of."

They received every advantage, educational and otherwise, that could be bestowed upon them, and made excellent use of their opportunities. John A. B. Mead, the eldest, graduated from the Michigan Military Academy, at Orchard Lake, in 1884, being then seventeen years of age, and taking the highest honors in a class of eleven; James A. Mead entered the Massachusetts Institute of Technology at Boston in 1886, and was admitted without conditions; Julia A. finished a course of study at seventeen, at the Misses Masters' school for young ladies at Dobbs Ferry on the Hudson, New York; William W. had completed a course in Professor Swensburg's Grand Rapids Business College, at which all the boys were honorable students, and at the time of his uncle's death, was about to enter the Michigan Military Academy. The children were all at home when suddenly bereft of their benefactor, and greatly mourned their irreparable loss.

On the evening of September 18, 1888, Major Watson bade farewell to his loving household to take a train for Chicago, apparently in his usual health; he had just entered the sleeping car, when he was seen to fall; friendly hands at once came to his aid, but, alas, it was of no avail; he was beyond the reach of human assistance; the family were summoned to the scene, and in just fifty minutes from the time he left his happy home the doors were again thrown open to admit his lifeless body. The cause of death was pronounced "heart failure," though it had never been supposed that he was subject to troubles of that nature. The funeral in charge of the Loyal Legion was held on Sunday, September 23rd, at the family residence; from nine o'clock in the morning until one o'clock in the afternoon, the body lay in state at his elegant mansion, near the park, and a throng of visitors constantly streamed up the steps and through the hall to take a last look at the well known and beloved features of the dead. Every rank in life was represented. All were reverent and respectful, and many a tear was seen to gather in eyes that fondly looked and reluctantly turned away. The cloth-covered casket stood just within the bay-window in the front parlor, and grouped around it were the many floral offerings of the comrades and friends of the deceased; at the head was a pillow of roses, bearing the word "Uncle," wrought in purple immortelles and surmounted by a crown of roses, exquisitely beautiful—a tribute from the adopted children; suspended from the ceiling was a floral badge of the Loyal Legion, and at the front was a button of the order, both from the members of the local Commandery. In addition to the thousands of the citizens of Grand Rapids, who filled the park long before the hour appointed for the obsequies, there were many prominent people in attendance from Chicago and all parts of the State. Special trains were run from Detroit, Kalamazoo and Muskegon, to accommodate the large number of personal friends of the deceased. The Detroit train was composed of the private cars of General R. A. Alger and General Manager J. B. Mulliken, which, brought the members of the Loyal Legion; the services, beginning at three o'clock, were conducted by the Rev. Charles Fluhrer, D.D., pastor of the Universalist church, assisted by the Rev. Campbell Fair, D.D., rector of St. Mark's Episcopal church. Rising, Dr. Fluhrer said:

> "In this hour, when the heart is filled with great sorrow, and need of strength beyond its own is deeply felt, let us seek it in the words which come down to us freighted with the hope and consolation of ages."

He then read appropriate passages from the scriptures, and offered a prayer. Then a quartet rendered, "He Peacefully Sleeps," after which Dr. Fluhrer spoke the following appreciative words:

> "There is a sense in which every man rears his own monument and writes his own epitaph, known to all who may give heed thereto; but there are always marked instances in which the character is so clear and the lines of life so distinctly drawn that all instinctively recognize them. He, in the presence of whose form we are gathered, was one of these. Whoever among us may be borne to yonder cemetery, it will be long ere another passes who will be followed by so many genuine mourners and who will leave so great a vacancy in our midst. Reared among the rugged hills of New England, like many another who came into this western land in the earlier days, here he dwelt until he became a part of our organic life; like one of our institutions. The strong, stately form, so familiar on our streets that a stranger in passing would turn and look at it again, lived among us in all the majesty of its grand simplicity, like one of our native pines in the forest. Here through the honest exercise of his allotted powers, he was blessed with the accumulated gain that came to his hand; and yet the man all the time grew more rapidly than the fortune, as if to show us what a worthy thing wealth may be when used to subserve the noble purposes of a nature that has learned its higher value. How largely this man, whose noble frame was the symbol of a nobler spirit, was identified with our interests; how many are the industries that fill the air with their music, which owe their accelerated pulses to the energy which he infused into them; how large was his public spirit that always took the highest pride in the city of his adoption, and which made him among the foremost to generously aid in all enterprises and to contribute to every charity that involved the public good; and yet unostentatious withal, for his was a nature as severely simple as a Doric column; the public enterprises and beneficence were surpassed by those streams of private benevolence that flowed from a sympathetic nature, thereby making "the blessing of him that was ready to perish come upon him, and causing the widow's heart to sing for joy." Such was something of the man who rises before us to-day, as yesterday he walked our streets; a man who "stood four-square to all the winds that blew;" upon whose patriotism his country never called in vain; sagacious in counsel, firm in his convictions, yet most gracious in yielding to others; true as steel in his integrity, and so genial that, while the casual acquaintance was won by his manner those who enjoyed his intimate friendship prized it above the telling. There were, too, the more sacred and tender qualities, shared most by those who found him so true and thoughtful and loving in the home, which must ever be consecrated by his spirit; but these are too hallowed to be spoken by other than household lips:

"His life was gentle, and the elements
So mixed in him, that nature might stand up
And say to all the world, This was a man."

The spirit of that life, as of the religion which he lived, may well be expressed in the lines of George Eliot:

"O may I join the choir invisible
Of those immortal dead who live again
In minds made better by their presence; live
In pulses stirred to generosity,
In deeds of daring rectitude, in scorn
For miserable aims that end in self,
In thoughts sublime that pierce the night-like stars
And with their mild persistence urge man's search
To vaster issues."

It has been good for us that we were touched by that life; for his companions in years to have felt his large and generous impulses; for the young men to have learned from him lessons of fidelity, gentleness, and honor; for those who loved him most to have inherited a hallowed joy and memory; yet we are prone to pause and ask, Was there no other way than this? Why was not that life, in the plenitude of its powers and the largeness of its possibilities, continued through the years? There comes no answer save that of our hearts, which, in their love and yearning, can not give up their own. Shall we not trust this quenchless longing of the soul as the divine pledge of our immortality?

Does not a life of so many noble qualities, yet with imperfections still, appear broken and thwarted unless it meets its other self in the complete growth of its being? Let us cherish the thought that it passes out of sight only to fulfill its larger destiny, and that in the unveiled future, where it is so light that our blinded eyes can not now see, all shall be revealed.

"For love will dream and faith will trust,
Since he who knows our need is just
That somehow, somewhere, meet we must."

In cherishing his virtues and holding his memory dear, let us pray that a double measure of his spirit may rest upon all."

Following the address, the choir sang, "Nearer, My God, to Thee," after which Dr. Fair read the Episcopal prayer for the dead. The remains were then borne from the house, and the solemn procession formed in the following order: G. A. R. posts, old settlers, Loyal Legion, clergymen, hearse, pallbearers, family relations, and friends, while thousands in carriages and on foot joined the cortege, which slowly passed through the streets to the Valley City Cemetery. Arrived at the cemetery the members of the G. A. R. formed in line on either side of the roadway, with colors draped and heads uncovered, and, as the procession passed, the muffled drum was beaten. The remains were deposited in the vault, and, in dismissing the assembled gathering, Dr. Fluhrer said:

"An old German saying has come down to us that a man makes three kinds of friends in this world—the gains he accumulates, the hearts whom he loves, and his good works. The wealth is the first to leave him when death lays its hand upon the form. The loved ones go to the tomb, turn from it, and pass to their homes. But his good works follow him through all the years, praising his name and making hallowed his memory. So let it be with him."

Yet, large as was the number participating in the ceremonies it did not contain a tithe of those who were bowed down with grief; in many a humble home, whither his beneficent hand of charity had reached, there was sincere sorrow, and, indeed, the whole community felt his loss, as of one who could ill be spared, and whose life in their midst had been most potent for good.

Charles Fox.—The student of human nature in his observation of men in this generation of business activity, feverish pursuit after wealth and the pleasure of life afforded by our present civilization, finds much to condemn and little to commend more especially among what may be termed the younger element of those now active in life, for often those qualities which should predominate, are lost in the advancement of self and he finds the "Ego" the ruling spirit governing the actions and the spirit of mankind: on the other hand, "the exception which proves the rule" is present, and an example is occasionally found of the sterling, honest, upright man whose wealth but adds to his interest in the welfare of his fellows, whose character is a fitting guide to the young man growing up around him, and whose actions are guided by unselfishness, honesty, and upright moral character, and to this latter class belongs the subject of this sketch. Mr. Fox was born at Ann Arbor, Michigan, December 15th, 1853, the youngest of six sons, children of the late Rev. Charles and Anna M. (Rucker) Fox. The Rev. Charles Fox was of English parentage, a native of Westoe, county of Durham, England, and one of that old Durham family which sacredly preserves its family tree with all its branches, tracing its root back to the sturdy Englishmen of the twelfth century. He first visited this country in 1833, making many friends in his travels among those who have since attained prominence in various spheres of life; and developing a taste for natural history, he made a valuable collection of birds, fish and mineralogical specimens which through his father formed the nucleus for a museum of natural history in Durham. He afterwards spent three years in study at the University at Durham, and returning to America completed his preliminary studies for the ministry, and was ordained a deacon on June 11th, 1830, at Hartford, Conn. His first call was to the Episcopal Church at Jackson, Michigan, and two years later he resigned to accept the pastorate of Trinity Church, Columbus, Ohio, and shortly after became the assistant of the Bishop of Michigan in St. Paul's Church, Detroit. In 1843 Mr. Fox purchased a farm on Grosse Isle, and severing his church connections in Detroit devoted his energies to mastering the art of farming, practically as well as theoretically.

In 1852 he began the publication of the "Farmers' Companion;" his untimely death July 24th, 1854, however, brought to an end this most valuable and successful enterprise. Mr. Fox had been instrumental in establishing a school of agriculture in the University of Michigan and while occupying the chair of Professor of Agriculture, he wrote and published the "American Text-Book of Practical and Scientific Agriculture." His was a most promising career and much of good to the people of his adopted state and country was lost by his all too soon early death. His widow, daughter of John Anthony Rucker, a native of Newark, New Jersey, was born September 7th, 1816, and is still living in her old age, surrounded by all the comforts and happiness which can be procured with money, gracefully presides over the beautiful home of her sons, at Grand Rapids, Michigan. It was shortly after the birth of Charles Fox that the family removed to Grosse Isle and here his early childhood was spent. In 1861, his mother located in Detroit, and the next seven years of his life was devoted to study at the private school of Professor P. M. Patterson, and later the family removed to Ann Arbor, and after graduating at the High School in 1871, Charles entered the University of Michigan, graduating from there in the classical course in 1875.

Mr. Fox seems to have early developed a desire "to see the world" in a literal sense, as much of his time since early manhood has been devoted to travel and exploration, and it is perhaps to this excellent educator that much of his success in life may be attributed. In 1872 he spent eight weeks on the Gulf of St. Lawrence on a mackerel schooner for the benefit of his health, and immediately after graduating from the university, in company with his mother, his brother, Dr. G. T. Fox and his uncle and aunt, Sir William and Lady Fox of New Zealand, spent a year in England and on the continent, visiting France, Germany, Italy and Egypt. In March, 1876, Mr. Fox came to Grand Rapids and engaged in the manufacture of lumber, as a member of the firm of Osterhout, Fox & Co., which has since become the Osterhout & Fox Lumber Co., of which he is at present secretary and treasurer. In 1883 he again visited Europe, traveling in Ireland, Scotland, France, Spain, Algiers, and other countries, devoting six months to the trip. In 1886 he visited the provinces of New Brunswick, Nova Scotia and Prince Edward Island, and in 1890 made an extended tour through the state of Chihuahua, Old Mexico, traveling about seven hundred miles on mule back over the Sierra Madre mountains. Another trip he made in 1892 to China and Japan, among other places of interest, visiting Pekin and touching in Corea, journeying to Seoul, the capital.

In 1855 Mr. Fox organized the firm of Fox & May, which was afterwards merged into the Grand Rapids Tie and Lumber Co. of which he became president. He also organized the South Grand Rapids Improvement Co., which has extensive interests in the southern part of the city, of which he was also made president; he is also director in the Michigan Trust Co. and the Grand Rapids Board of Trade, where as chairman of the Lumber Committee he with the balance of the committee lately issued new rules for the inspection of lumber, which have been very generally adopted. Mr. Fox became a member of the Masonic fraternity in 1881, in which he has taken all the degrees to the thirty-second, as well as that of Knight Templar and also Mystic Shrine. Politically he has also been an ardent Republican.

In 1892 Mr. Fox married Miss Corrine Hinsdill, the daughter of Colonel C. B. Hinsdill of Grand Rapids. The following is from the pen of an intimate friend and fellow townsman of Mr. Fox. "Socially, Mr. Fox has, by his suavity of manner and speech, his superior intelligence and upright bearing, gained an enviable position; endowed with a generous public spirit he is quietly and unostentatiously doing his full share as a private citizen towards the advancement of the city's best interests, and is a liberal contributor of his means for charitable purposes whether the call be from a private or public source. Popular among his fellows, his success in life is a matter of gratification and pride to the numerous friends his individual worth has won for him."

CHAPTER XIV.—MASON COUNTY—MUSKEGON.

REMINISCENCES.—EARLY OPERATIONS.—DEVELOPMENT AND DECAY OF THE LUMBER INDUSTRY.

BY the year 1836 the hamlet of Chicago was attracting a good deal of attention, its population having increased from 30 in 1830 to 4,170 in 1837, and the fast increasing population required a constantly increasing volume of building material, of which "rived" shingles formed an important factor. It is not strange then that every bluff at or near the mouth of Grand river and the lake shore was occupied by a shingle weaver's shanty, for the manufacture of "breasted" shingles, the day of sawed shingles not having as yet arrived. In this manufacture the only necessary tools were the froe and the drawing knife ("draw shave") and the products constituted to a large extent the currency of the country bordering on the lake, shingles being looked upon as legal tender for all debts in every variety of traffic, and forming a no inconsiderable element of the trade of such enterprising merchants as had located in the sparsely settled country, where they could exchange salt pork, molasses and whiskey, together with some of the lesser necessities of life, for shingles and pelts, the latter sharing with shingles in forming a currency which found ready circulation.

The first mill at Muskegon was commenced in January, 1837, by Benjamin H. Wheelock, agent for the Muskegon Steam Mill company, the stockholders of which were largely citizens of Detroit and Ann Arbor. This mill was erected on the site later occupied by the mill of White, Swan & Smith, which was secured through pre-emption, by Mr. Wheelock. It was a large mill for its day, having two sash saws with a daily capacity of 10,000 feet. This mill was equipped with the boilers and engine of the steamboat Chicago, which was wrecked near St. Joseph in 1836. The financial revulsion of the later months of 1837 led to delay in the completion of the mill, and it was not started to saw any lumber until the following year, when it inaugurated what afterward developed into the most extensive lumber manufacture of western Michigan. But the time had not yet come when the manufacture of lumber was richly remunerative, and in 1839 the mill property passed into the hands of John Lloyd of Grand Rapids and John P. Place of Ionia, who owned and ran it until 1841, when the mill was destroyed by fire, and the machinery, or so much of it as was saved, was taken to Grand Rapids.

In August, 1837, Jonathan Ford, agent for a Buffalo and Black Rock company began the erection of a water mill near the mouth of Bear Lake. This also was completed in 1838, and in February, 1839, forty thousand feet of its product was hauled by teams to the mouth of Muskegon Lake for shipment, and was loaded on the schooner Victor, which after battling for ten days with the ice, landed her cargo at Chicago, the first shipment from Muskegon. This mill was in 1840 sold to Hiram Judson & Co., who added an improved water wheel, which greatly increased its capacity. The mill ran until 1853, when it was burned and was not rebuilt.

In 1838 Theodore Newell began a single sash mill which was completed in 1839 and occupied the site later occupied by the mill of Ryerson, Hills & Co. It was this mill which Martin Ryerson took to run "by the thousand," and later, associating with him Samuel Green, established the firm of Green & Ryerson, and shortly after purchased the mill and formed the firm of Ryerson & Knickerbocker, which later became Ryerson & Morris (Robert H.), and Ryerson & Co., and they by Ryerson, Miller (Watts T.) & Co., and again Ryerson & Morris, until in 1867 it was reorganized as the Ryerson, Hills & Co., including Henry H. Getty, Ezra Stevens, and Charles T. Hills, and from 1890, Martin A. Ryerson. To follow this mill through all stages of its development from an original capacity of two to three thousand feet per day until it was rated at 300,000 feet per day or an output of 55,968,602 feet per season, the record of 1890, would occupy too much space; suffice it to say that the mill built by Newell, as improved by Martin Ryerson in connection with the various firms mentioned, in the forty years of its commission cut probably no less than 1,500,000,000 feet of lumber, together with 300,000,000 shingles, lath and pickets. The original mill had one sash saw run from an engine of eight inch bore by twenty-six inch stroke, and a boiler sixteen feet long by thirty-six inches diameter, with one thirteen inch flue. Its power was insufficient to run the saw while hauling up ("jacking") a log, and it was not until 1845 that by tearing down and rebuilding, a new and larger mill was constructed, bearing but little resemblance to the original. In 1842 Joseph Stronach built a small water mill on the site later occupied by the Montgomery & McGraft mill, which in 1844 was purchased by George & John Ruddiman, who afterward put in a small engine and used both steam and water power, which combination proving insufficient, oxen were employed to haul up the logs, and from this no doubt originated the term "bull wheel," as applied to the hauling of logs to the floor of a saw mill. This mill was destroyed by a freshet in 1848 and rebuilt as a steam mill in the following year. In 1847 S. J. Green built a water mill at the mouth of Green's creek on the north side of Muskegon lake, which after a few years went to decay. William Lasley and G. T. Woodbury built a steam mill in 1848 which was later known as the Chapin, Moss & Foss mill, it having been purchased by that firm in 1852; it subsequently was purchased by Thomas D. Stinson, who ran it for many years.

In 1849 John Ruddiman built a steam mill on the north side of the lake, on the site later occupied by the mill of Torrent & Arms. This mill ran until 1862, when it passed into the hands of Anson Eldred, after a closely contested suit at law. The mill burned in 1870, and the following year was rebuilt by James Farr, Jr., who came into its possession in 1869. Farr sold in 1871 to Torrent & Arms, upon whose hands it was again burned in 1872, a new and much more modern mill succeeding.

In 1840 there were three mills on Muskegon Lake with an aggregate capacity of about 13,000 feet daily. In 1850 there were six mills with a daily aggregate capacity of 60,000 feet, and in 1860 there were thirteen mills with an aggregate capacity of 351,000 feet daily, or an average of 27,000 feet each, and comprised the mills of C. Davis & Co., 38,000; Ryerson & Morris (Bay), 36,000; Brown & Trobridge, 16,000; Ryerson & Morris (Upper), 24,000; Durkee, Truesdell & Co., 38,000; Eldred, Way & Co., 20,000; Smith, Fowler & Co., 20,000; Trobridge & Wing, 22,000; John Ruddiman, 36,000; L. G. Mason & Co., 36,000; J. C. Holmes & Co., 15,000; J. & H. Beidler, 35,000; George Ruddiman, 15,000. Perhaps nothing is better calculated to show the evolution of the saw mill, caused by the increased demand for lumber in the growth of the country during the next quarter of a century than the condition and improvements indicated by the increased capacity found at Muskegon in 1875, at which time the record and daily capacity was as follows, viz.:

Rutherford, Anderson & Co	70,000
C. Davis & Co	80,000
Chapin & Foss	40,000
Bigelow Bros	70.000
C. H. Hackley & Co	150.000
White, Swan & Smith	80,000
E. Torrent	30.000
E. Eldred & Co	80,000
Torrent & Ducey	30,000
Wilson & Boyer	75.000
Ryerson, Hills & Co	48,000
Mason Lumber Co	130,000
Geo. R. Roberts & Hull	130,000
Beidler Mfg. Co	130.000
Montague, Hamilton & Co	120.000
Alex. Rodgers	65.000
C. D. Nelson & Co	120,000
Farr, Dutcher & Co	40,000
Bushnell, Walworth & Reed	60.000
A. V. Mann & Co	75,000
A. M. Allen & Co	30,000
Beaudry, Vallicott & Co	40,000
McGraft & Montgomery	40,000
Kelley, Wood & Co	75,000
Ryerson, Hills & Co	90,000
Torrent & Arms	150.000

A total of twenty-six saw mills with an aggregate capacity of 2,048,000 feet per day, an average of about 79,000 per mill. At this time the mulay and sash saw had almost wholly given place to the circular and gang mill, which in the next decade were in turn to be displaced by the band saw.

The first attempt to run logs down the Muskegon river was made in 1839 by John A. Brooks, the logs having been cut a few miles above Croton in Newaygo county, a distance of about fifty miles from Muskegon, although a much greater distance by the crooks and turns of the river. It was a daring work in that day to cope with the snags and islands, which required a large outlay of time, money and whiskey to clear the stream. The temperance wave had not yet struck the west, and it was still thought impossible to raise a frame, roll up a log heap or handle saw logs in the woods the stream or the saw mill, without a liberal supply of whiskey, the cost of which was but sixteen cents a gallon, and which was meat, drink and medicine to a majority of the new settlers; whiskey and quinine was the principal medicine, a specific for all diseases from snake bite to fever and ague, and whiskey clear served to a goodly extent as currency, especially in purchasing furs from the Indians and as an adjunct to log driving, if not to log cutting and hauling. The arrival of the "spring drive" within boom limits called for a great carousal until about 1861, when a village lock-up being completed, more circumspection became necessary with the loggers, not by any means bad fellows in the main, but men who had been hidden in the woods for a half year, and must celebrate their liberation by a "hurrah" or or drunken spree, which generally lasted as long as their money held out, which was usually a day or two, seldom as long as a week.

Conspicuous among the names of those who have been heretofore mentioned in connection with the Muskegon trade was that of Martin Ryerson, who was born at Patterson, New Jersey, in 1818, and at the age of 16 came west and found employ with Richard Godfrey, an Indian trader, with whom he remained for two years, when he entered the employ of Joseph Froutier, another Indian trader, with whom he visited the Indians at their camps from Mackinaw to the southern portion of the peninsula, and here he acquired an influence over them which bound them to him and he to them to the end of his life. It was while he was engaged in Indian trading that he became impressed with the extent and value of the white pine forests of Michigan, and it is little wonder that in 1841 he in connection with L. J. Green took the Newell mill under a contract to run it for a term of two years, at the expiration of which time the contract was renewed for two years longer, or until 1845, when in company with J. H. Knickerbocker he purchased the Newell interest, and during the first year of the joint ownership worked in the mill for an average of sixteen hours a day, in all the various departments, as vacancies among the men demanded. The mill of that day was a very simple affair, being a single sash or gate saw of capacity to cut an average of one hundred thousand feet per month. Not many years later Mr. Ryerson's mills were expected to cut that quantity of lumber each day. Mr. Ryerson died suddenly in Boston in 1887, as he was about to return to his home in Chicago, after a temporary sojourn at the sea shore. As a tribute of respect for the Indians with whom his earlier career was so closely connected, Mr. Ryerson some time before his death caused the erection of the beautiful Indian group in bronze, which graces and ornaments a prominent position in Lincoln Park, Chicago.

Yours truly
C. H. Hackley

John Ruddiman built a mill at Muskegon in 1849 and in it was placed a "siding" mill, which it is claimed was the first to be used on the west side of the state. This was a machine for which "cants" were prepared by the sash or mulay, and which, operated by a small circular was able to saw more rapidly and with a much smoother surface than could be obtained from an upright saw. These "cants" were usually six inches to eight inches thick and not seldom were placed one upon another for sawing flooring or siding strips.

For the day and the timber of the day, it was a valuable machine, which went out of use with the introduction of the rotary and gang.

The timber of the Muskegon river and its tributaries was for many years among the best of its class in the nation. Elder Hickey, a Methodist itinerant missionary of that day, speaking before the Pioneer society of the state in 1880, said: "I was at the Brooks mill in Newaygo in 1847, and there saw the finest boom of logs which it has been my lot to see either before or since; the lumber was rafted down the river to Muskegon, where it was loaded on vessels for Chicago."

The mill cut at Muskegon was reported in 1873 to have reached a volume of 329,689,000 feet of lumber and 22,750,000 shingles, rising to 396,334,000 feet of lumber and 32,000,000 shingles in 1876. The high water mark of production was reached in 1887 when the figures were 665,449,921 feet of lumber and 520,531,750 shingles, but from this date the decline was noticeable, falling to 490,912,236 feet of lumber and 347,201,750 shingles in 1889; 253,716,426 feet of lumber and 169,392,000 shingles in 1892; 131,286,000 feet of lumber and 75,953,000 shingles in 1893, and 40,907,946 feet of lumber with 53,825,000 shingles in 1895. The total reported cut of Muskegon from 1873 to 1896 was 10,055,771,124 feet of lumber, and 4,146,401,000 shingles, equal to 518,300,125 feet of logs. To these figures a conservative estimate adds 36 per cent or 3,789,385,649 feet for production between 1836 and 1873 (local sources reported a cut of 1,895,867,200 feet in the aggregate for the nine years from 1864 to 1872 inclusive) and a factor (of no slight importance) which was "unreported," in various years, in logs towed to other points, making a grand total production at this point of 14,363,456,898 feet of timber handled at Muskegon and coming from forests contiguous to that stream. It must by no means be assumed that this enormous figure represents the entire output of the forests contiguous to the Muskegon river, for to these must be added that vast volume of timber manufactured by interior mills upon the line of the Chicago & West Michigan railroad, which between 1873 and 1895 was reported at a volume equaling 2,366,312,236 feet (including 2,184,616,500 shingles). So also the Grand Rapids & Indiana railroad line is credited with a production of 5,285,609.021 feet, (including 4,761,634,750 shingles reduced to logs at the rate of eight thousand shingles to one thousand feet of lumber) no small proportion of which must be credited to the forests contiguous to the Muskegon river. The historian has no hesitation at crediting this stream with an output of 25,000,000,000 feet of pine timber during the past half-century. Its future resources in hemlock and hardwoods, with a small remaining quantity of pine are a matter of speculation in which the historian hesitates to indulge.

The heyday of lumber manufacture at Muskegon was reached in the period between 1880 and 1890; in the former year the following named firms were operating with a reported cut for that year as follows, viz.: W. Rutherford & Co., 20,287,122; M. Wilson, 16,000,000; C. Davis & Co., 18,812,000; Ryerson, Hills & Co., (two mills) 43,923,483; Chapin & Foss, 12,250,000; Thayer Lumber Co., 34,050,532; W. H. Bigelow & Co., 14,702,000; Hull & Watson, 26,000,000; C. H. Hackley & Co., 30,173,962; Beidler M'f'g Co., 22,800,000; Swan, White & Smith, 21,000,000; Walworth & Reed, 18,500,000; Hamilton, Gerrish & Co., 43,621,798; McGraft & Montgomery, 13,720,000; Tillottson & Blodgett, 13,000,000; T. B. Stimson, 18,938,342; Mann & Moon, 23,372,185; Rogers & Co., 20,000,000; George E. Wood, 17,000,000; Eldred & Co., 24,000,000; S. C. Hall, 11,501,127; C. D. Nelson & Co., 26,059,995; R. J. Miller & Co., 8,489,103; Charles Beaudry & Co., 13,000,000; F. W. Farr & Co., 28,000,000; C. N. Storrs, 9,000,000; Torrent & Ames Lumber Co., 45,000,000; W. S. Gerrish (shingles), 33,561,000; F. B. Peck & Co. (shingles), 24,442,000; a total of 591,201,649 feet of lumber and 58,003,000 shingles.

It is unnecessary to go into the details of the production for subsequent years, it sufficing to summarize the production of succeeding years which will show the culmination and decadence of the business to a sufficient extent for all historical purposes, the list of manufacturers being mainly comprised in the list given above. The production of these years was as follows:

	Lumber.	Shingles.
1881	661,845,423	89,000,000
1882	643,780,512	121,398,250
1883	646,263,886	225,529,000
1884	639,952,568	329,525,500
1885	543,409,637	383,844,500
1886	620,334,164	458,100,000
1887	665,449,921	520,531,750
1888	626,588,166	501,157,000
1889	490,912,236	347,201,750
1890	433,960,553	364,721,000
1891	337,156,763	191,117,250
1892	253,716,426	169,392,000
1893	131,286,000	75,953,000
1894	127,510,272	62,252,000
1895	40,907,946	53,825,000
1896	48,249,379	40,676,750
1897	24,650,000	41,900,000

Nothing which could be written could more forcibly portray the facts, nor the decay of the lumber industry upon this, the second most important lumber producing river and section of the State of Michigan, and is an index of the rapid denudation of the pine forests of nearly all portions of Michigan, the future production of pine lumber at Muskegon will probably not exceed if it reaches 200,000,000 feet in the aggregate. We present the sketches of a number of the leading operators of this locality.

Whitehall and Montague on White Lake (see also Chicago & West Michigan railroad), at the mouth of the White river, have been important producers of lumber. A saw mill was built on White river in 1850 which in later years became known as the Heald, Avery & Co. mill; this was a mulay mill, which was afterward changed to a circular, and in the statistics of 1874 was rated at 8,000,000 feet capacity. In 1855 J. W. Norton built a mill of similar capacity, and in the following year (1856) Heald, Avery & Co. built a similar one at Maple Grove. We find no record of the operations of these mills, nor of those of Ferry Dowling & Co. (1865) rated at 12,000,000 feet per annum, until 1873, at which time record is found of the mills of Charles H. Cook & Co., built in 1866, and rated at 8,000,000 feet capacity; A. B. Bowen & Co. (1865), 6,000,000 feet; A. J. & C. E. Covell (1866), 6,000,000; James Dalton & Brother (1867), 12,000,000; J. Alley & Co. (1867), 12,000,000; (these three being located at Whitehall); Ferry, Dowling & Co., Montague (1868), shingles, 2,000,000; F. H. White & Co., Montague (1872), 10,000,000; Norris & Green (1872), shingles, 10,000,000; Covell Manufacturing Co. (1874), shingles, 12,000,000; and Staples & Covell (1874), saw mill, 6,000,000 feet annually.

The product of these mills in 1874 aggregated 54,500,000 feet of lumber and 27,500,000 shingles, the product of 1875 being stated at 56,400,000 feet of lumber and 36,500,000 shingles.

The lumber cut of this locality in 1880 was reported at 91,451,458 feet of lumber and 47,245,000 shingles, with practically the same operators, the culminating year being found in 1885, when the cut reached 94,576,430 feet of lumber with 75,535,000 shingles, and from this point the production decreased to a cut of but 16,575,000 feet of lumber and 21,800,000 shingles in 1895, and 12,112,000 feet of lumber and 15,285,000 shingles in 1896. The aggregate production from 1873 to 1896 inclusive was 1,525,378,931 feet of lumber, and 1,017,225,000 shingles. Reducing shingles to lumber and adding an estimated 20 per cent for production previous to 1873, together with a factor of unreported, and we arrive at a fair estimate of the lumber production of this stream by placing the total at 2,000,000,000 feet.

The operators noted as continuing until the present time are C. G. Alley & Co., C. E. & M. B Covell, Staples & Covell, and the Nufer Cedar Company, with an aggregate cut in 1895 of 16,575,000 feet of lumber, and 21,800,000 shingles. While the pine timber of this stream has reached the period of exhaustion, there is a large quantity of hemlock, cedar and hardwood timber yet remaining, which will afford a restricted manufacture for many years to come.

Charles Henry Hackley, a lumberman of the City of Muskegon, Michigan, was born January 3, 1837, at Michigan City, Indiana. He is the sole survivor of a family of three sons and two daughters, resulting from the marriage of Joseph H. Hackley and Selina Fuller. While Charles was yet in his infancy, his parents removed to Kenosha, Wisconsin, at which place the boy received such education as was provided by the facilities of the common schools of that town. His father being a contractor, engaged in railroad and plank road building, at the age of fifteen, he left school to become his father's assistant in such work. So efficient, and proficient, did he prove, that at the age of seventeen, he was given the charge of twenty miles of plank road to keep in repair. Like many other of the enterprising and restless young men of the time he, realizing that there was much to conquer, raised his standard high and determined to attain such a position although there were risks to be taken and obstacles to be overcome ere success would crown his efforts. Western Michigan was at this period offering especially attractive inducements to young men who were not afraid of work in the immense forests of pine which were just coming into prominence, seeking manufacture and a market, and in April, 1856, he worked his passage on the schooner Challenge from Kenosha to Muskegon, arriving on the morning of the 17th of that month, with very little capital for the commencement of a life which has eventuated in an abnormal financial success, in which with the true public spirit which marks a large proportion of the successful lumbermen of the past generation, the citizens of Muskegon have in no small degree been called to share in the erection of public institutions and buildings dedicated to their use. If the young man had no capital and no acquaintances in the new field of labor, he yet had courage, health, brains, self confidence and a purpose to succeed; about as good assets as a young man could possess in starting out in life. At noon of the day of his arrival at Muskegon, he began to work as a common laborer for Durkee, Truesdell & Co., lumber manufacturers, without stated pay, being willing to make his compensation contingent upon the satisfactory discharge of the duties assigned him. His work soon told of his value and he was entered on the pay roll at full going wages, and before long promoted to more important duties. In the fall he was sent to the woods as scaler of logs, and remained in the camp near Newaygo during the winter. In the spring of 1857 he was again promoted, and was given the position of outside foreman of the saw mill, having charge of the assorting of the lumber as it came from the mill. Here also he made rapid progress, a single year sufficing to give him such practical knowledge of the business as was of the greatest benefit to his employers, as well as to himself. His quickness and accuracy of perception, his readiness for work, his practical good sense and wide range of executive ability, attracted the attention of his employers and convinced them that he was a young man who deserved encouragement and advancement, and who ought to have a little educational lift to hasten the oncoming of that practical business life which it needed not the gift of prophecy to foresee was in store for him. At their suggestion and with their aid he returned to Kenosha in the fall of 1857 and spent the winter in hard study, doing double time in a commercial college. The spring of 1858 found him again in Muskegon, where he entered the employ of Gideon Truesdell as bookkeeper, the firm for which he had previously worked having been dissolved. With the passing of another year he had acquired such knowledge of the routine and detail of the lumber business that with the savings and accumulations of his salary he felt warranted in entering into business on his own account. In the spring of 1859 his father having meantime moved to Muskegon, the firm of J. H. Hackley & Co. was organized, the members being J. H. Hackley, Charles H. Hackley, and Gideon Truesdell, his late employer, and the firm purchased the saw mill and plant of Pomeroy & Holmes, a manufacturing firm which had lately failed: they then entered into a general manufacturing lumber business. Their venture proved successful and profitable and in 1860 the firm added to their business by the purchase from Alva Trobridge of the property known as the "Wing mill," which was operated by them in connection with their previous operation.

On October 3, 1864, he was married to Miss Julia E. Moore of Centerville, Allegheny county, New York; no children have blessed their union. From the day of his entrance into business life increasing prosperity has responded to the tact, good judgment and industry with which his affairs have been conducted. He has been associated with his father and with two brothers, Edwin and Porter, and all have been made wealthy. His father died in 1874 at a ripe age, highly respected by all who knew him, as an honorable man and a representative citizen. It was but a few years later that both of his brothers also passed to the silent majority. The firm of J. H. Hackley & Co. was followed by Hackley & Sons and C. H. Hackley & Co., in all of which the subject of our sketch was the principal partner. James McGordon was for fourteen years a partner and died in 1880 leaving a large and valuable estate. His interest in the firm was purchased by Mr. Thomas Hume, and the present firm of Hackley & Hume was founded, and is recognized as one of the strongest among the many strong firms in the lumber trade of the northwest, and second to none for fairness, ability and enterprise, or for business and commercial standing. They own extensive tracts of land in Michigan, Wisconsin, Minnesota, Arkansas, Louisiana, Mississippi, and South Carolina. They are largely interested in manufacturing plants in Michigan and Minnesota, being interested in the H. C. Akely Lumber Company at Minneapolis with a manufacture of 75,000,000 feet of lumber per year, and have recently become interested with Messrs. Gardner & Lacey in a large operation known as the Gardner & Lacey Lumber Co. at Georgetown, South Carolina, with a manufacture of 15,000,000 feet of cypress lumber per year; they have also a half interest in the Bennett Bros. Lumber Co. of Sandusky, Ohio, in a retail lumber business of 30,000,000 feet per year. In connection with the mills are also a great variety of necessary adjuncts, in logging railroads, etc. Mr. Hackley has a reputation of enviable character not only as a lumberman, but as a financier, having investments outside of mills and pine lands, in banks and other financial concerns. He is president of the Hackley National Bank and a director in the Oceana County Savings Bank, of Hart; the Michigan Trust Company of Grand Rapids, and other important institutions. He was for many years a director in the Muskegon Booming Company, and is interested either as an officer or stockholder in a large number of private business corporations and firms. He succeeded his father as County Treasurer of Muskegon county in 1874; held the office of Alderman for two terms and served a part of one term as a member of the Muskegon Board of Public Works; was elected in 1877 as a member of the Board of Education, and was re-elected in 1880, but declined to serve, until again elected in 1888; re-elected in 1891 and in 1894 was elected president of the board, an office which he still holds, and in connection with which he has exhibited a public spirit and devotion to the interests of the city with a far-sighted appreciation of the city's needs, and a marked generosity (seldom met with in the history of cities) for the fulfillment of those needs, which endears him to his fellow citizens. The following correspondence testifies of this in a more emphatic manner than would any words which we could write.

Muskegon, May 25th, 1888.

To The Board of Education of
The City of Muskegon.

I hereby offer to give to the public schools of the city of Muskegon the sum of one hundred thousand dollars, in trust, for the following purposes, and in the following manner:

I propose to erect on lots seven and eight in block seventy in this city a suitable and commodious building for a public library and reading room, and to deed the same to your corporation. Should such building and site cost less than $50,000, so much of that unexpended amount as remains will be given to your board to be expended in the purchase of books and other suitable literature for such public library and reading room. The sum of $50,000 shall be placed in your hands to be permanently invested by you in some good, safe interest bearing securities forever, the income from such investment to be applied by your board in its discretion, in the acquisition and purchase of books and other literature for such library and reading room. It is possible, however, that the site and building may cost in excess of the sum of $50,000, and in that case the remainder of the $100,000 will be given you to be invested as above and for the purposes last stated. I make this donation upon condition that the public library and reading room so established shall be forever maintained as a public library in the city of Muskegon, having a reading room in connection therewith under the control of your board, and under such rules and regulations as you may from time to time prescribe, having in view the use of said library and reading room by the public in a most liberal manner, and that the same shall be open to the public each day (Sunday and legal holidays excepted) between the hours of nine o'clock a. m. and nine o'clock p. m., and on such other days and during such other hours as you may see fit; that the same shall be kept in good order and repair by your board, which shall likewise employ a competent librarian and assistants to take charge of the same, and to serve the public as may be necessary; and that your board shall annually provide for and defray all ordinary and incidental expenses of maintaining the same. I also make the further condition, That the ground upon which said building is erected, and the building and books and material therein shall be and forever remain the property of said corporation, except of course that worn out books and material may be disposed of in such manner as you may see fit. And I ask you to deliver to me your formal acceptance of the proposed donation upon the terms and conditions above specified. I leave it to you to give an appropriate name to said building.

Yours very truly,

Charles H. Hackley.

The great liberality and public spirit indicated by the above, will be more fully appreciated from the supplementary correspondence which took place, and of which the following is a copy.

Muskegon, July 30th, 1888.

To the Board of Education of the City of Muskegon.

Gentlemen: It is already apparent that the sum I have devoted to the erection and maintenance of the public library and reading room will be insufficient to accomplish that purpose and at the same time provide at the outset for the furnishing of the building and a sufficient number of books for the library to be at all commensurate with the size of the building and character of the institution. I feel that this matter should not be left in uncertainty or insecurity, but that we should have from the beginning a thoroughly comfortable and inviting library building, well supplied with good literature. I therefore propose to donate the sum of $25,000 additional, to be furnished as needed, and used under your direction, in the furnishing of the building and the purchase of new books. Very truly yours,

Charles H. Hackley.

Soon after the reception by the Board of Education of the original notice of Mr. Hackley's munificent donation, and as soon as the necessary preliminaries could be settled, plans were submitted by six different architects and the design presented by Messrs. Patton & Fisher of Chicago was selected, and the completed building testifies to the wisdom of the choice, no less than to the genius and careful study of the architects, and speaks more fully than any necessarily incomplete description which could be conveyed in words. It is constructed in a most durable and substantial manner of granite with "rain drop" Lake Superior sandstone trimmings, highly ornamental and appropriate in design, and has shelves for 70,000 volumes, there being at this writing an accumulation of more than 22,000 volumes of well selected literature, including the best of American and foreign periodicals. The dedication of this beautiful library, which is hereafter to be known as the "Hackley Public Library," occurred on Wednesday, October 15th, 1890, at 2:30 o'clock P. M. with the following program:

Music—"Tannhauser" .... Wagner
Opera House Orchestra.
Prayer... Rt. Rev. George D. Gillespie, D. D., LL. D.
Music—"All Hail Muskegon's Jubilee"........
Mrs. Bennett, Miss Aldrich, Miss Jones, Miss Smith, Mr. Renwick, Mr. Bassett, Mr. McMillan, Mr. Fleming.
Address—"The Founding of the Hackley Public Library" ....
Frederick A. Nims, Pres. Bd. Education.
Music—"Jubal" Overture .... Weber
Opera House Orchestra.
"The Building" ...... Norman S. Patton, Architect
Vocal Solo............................. Selected
Mrs. D. E. Shetley; Miss Haight, Accompaniment.
Address .... Hon. T. W. Palmer, of Detroit
Music—"Hackley March".... Opera House Orchestra
Benediction........... By Rev. Samuel M. Cramblet

In the evening a public reception was held by the Board of Education. Upon the corner stone of the building is to be seen the inscription:

The Possession of the Living;
The Heritage of Posterity.

In this motto is probably to be discerned the actuating principle of Mr. Hackley's benevolence. The good that men do while living is the surest perpetuation of their memory by the generations which are to follow. Mr. Hackley is not only a lover of the city in which his success in life has been realized, but is as well a lover of his country and an admirer of those valiant men who at their country's call marched forth to maintain its honor on the field of battle, and to perpetuate the memory of the gallant sons of the North who responded to that call in the days of the rebellion, Mr. Hackley resolved to erect a monument, and addressed a communication on Christmas day, 1889, to the officers and members of Phil Kearney Post No. 7, G. A. R., advising them of his intention of placing in the hands of Hon. A. Dickerman, Louis Kanitz and F. A. Nims, as trustees, the sum of $15,000 to be expended in the erection of a monument of appropriate design on some site to be selected. Competitive designs were invited and received from a large number of architects and sculptors from all sections of the country, the design of Joseph Carabelli of Cleveland, Ohio, being finally selected by a unanimous vote of the trustees and with the approval of Mr. Hackley, who now realizing that the donation made by him for this purpose would not be sufficient to cover the cost, gave carte-blanche to go ahead and get the best, without in any degree imperilling the durability or beauty of the monument. The monument was completed in time for its dedication upon Memorial day, 1892, with appropriate commemorative exercises, the Rev. Washington Gardner being the orator of the day. The monument consists of a shapely and symmetrical Corinthian shaft of Rhode Island granite, surmounted by a colossal statue of Victory. On the four corners of the pedestal stand bronze statues representing the four arms of the service, Infantry, Sailor, Cavalry and Cannonier. On the main panel in raised letters is the inscription, "To the soldiers and sailors who fought, and to all patriotic men and women who helped to preserve our nation in the war of the rebellion." On the opposite panel, "A Memorial Tribute from Charles H. Hackley, December 25, 1889." On the band encircling the column above the pedestal, "Not Conquest, but Peace and a United People." The monument is seventy-six feet in height and is located upon an entire block in the center of the city, the block being purchased by Mr. Hackley at a cost of $50,000 and presented to the city to be forever maintained as a park, and a site for the monument.

But Mr. Hackley's liberal heart was not yet satisfied, there was yet other monuments to be erected for the benefit not only of the present generation, but as well for posterity. On the fifth of April, 1889, a fire destroyed the Central school building, which was located directly opposite the park. It was a handsome structure, having cost about $60,000, and the loss was deeply felt by the citizens, more especially as there was a crying need for a High school building, and the insurance on the burned building being but $30,000, it was felt that the burden of taxation would be too great to permit of the rebuilding of the lost edifice in a manner commensurate with the present needs and future prospects of the city, and at the same time to erect what seemed almost of equal necessity, a High school building which should also comport with the public need. In this emergency Mr. Hackley presented a written communication to the Board of Education, stating that if the electors of the district would vote an issue of bonds to the extent of $75,000 to run fifty years with annual interest at five per cent, to be expended with other available resources of the Board in the rebuilding of the Central school and to erect a High school which should cost about $45,000, he would cash the bonds and donate them to the district for all time as a trust fund, the interest of which should be used for defraying the current expenses of the Hackley Public Library forever. This magnificent offer solved the difficulty and was accepted by a unanimous vote of the taxpayers at a special election called for the purpose, with the result that the city can now boast of its beautiful Hackley school, one of the largest and most conveniently arranged in the state, located contiguous to the Hackley Library and the Soldiers' monument, at a cost complete of about $80,000, and has also secured a beautiful and imposing High school, costing $60,000.

But the sum of his benevolence was not yet complete, as was evidenced by his communication October 18th, 1895, to the Board of Education of Muskegon, in which he proposed to donate $30,000 to the Board for establishing a Normal Training School for the children of Muskegon, which, when completed, he would give $5,000 yearly toward its support during his life, and make such provision in case of his death as would insure the income from $100,000 to defray its expenses forever. It is needless to add that this munificent gift was at once accepted in behalf of a grateful community, and that there has arisen a stately and imposing Normal school building in which the name of Hackley will for all time be held in reverence, and his princely gifts bear fruit in an enlightened citizenship, such as alone can be secured through a wise and intelligent education of the youth of our land. This building was erected at a cost finally of no less than $65,000, the original proposition being supplemented by an increased donation more than doubling his original gift.

But even these evidences of his love for and substantial interest in the material and aesthetic advancement of the city were not to be the sum total of his beneficences nor the culminating evidences of his patriotic fervor, for on March 23d, 1898, Mr. Hackley announced his desire to still further beautify the public square upon which stands his munificent gift of a Soldiers' monument by placing upon each of its four corners bronze statues of those national heroes, Lincoln, Grant, Sherman and Farragut, a fitting complement to the beautiful tribute which in the center of the square commemorates the valiant deeds of the brave men of whom they were the leaders, and from whom the rank and file of the army and navy of 1861 to 1865 received their inspiration. This later gift, which at a cost of $20,000 he proposes to donate to the city of Muskegon, is but another evidence not only of the civic pride of Mr. Hackley, but as well of that patriotic devotion which would perpetuate among its future citizens the memory of the valiant men who led our army and navy to the victories which sealed the undivided nationality of our country.

Mr. Hackley is of medium height and size, of compact build, is rather inclined to baldness, has attractive and pleasing features, wears a flowing beard with moustache, both considerably streaked with gray. He is courteous and genial in conversation, a good listener, always approachable, free from hauteur, asks few but pointed questions, decides quickly and finally. He is modest and retiring in demeanor, neat in personal habits, taste and dress, with a decided aversion to ornament or display. His business ideas are clear and reliable, few men equaling him in ready and correct judgment. He has a high sense of the responsibility involved in the possession of great riches, believing himself to be but a trustee for the benefit of mankind. Of his private charities it would not be his wish nor would it be becoming that we should speak, his instincts are always generously inclined toward the aid of the deserving needy, without trumpeting or ostentation. Not a member of any church, but a liberal sustainer of the treasury of all denominations, he, as do all good Masons, recognizes the ethical truths of his Masonic profession, possibly looking to them as sufficient for all moral needs, and in this he perhaps is as near the truth as many who pin their faith wholly to theological dogmas rather than to a practical exemplification of the heaven-born doctrines of Brotherly Love, Relief and Truth.

A Republican in politics, Mr. Hackley was elected delegate representing the 9th district of Michigan in the Republican National Convention at Minneapolis in 1892, where his vote was cast for James G. Blaine; he was also a delegate to the St. Louis convention of 1896, in which he voted for the nomination of William McKinley for the presidential office.

Mr. Hackley is a fair exponent of that business success, that conquering of adverse conditions, and that wholesouled liberality which in all branches of the lumber business has ever been recognized as one of the legitimate concomitants and outgrowths of a business which in its magnitude has ever been a promoter of liberal thought and action.

Thomas Hume of Muskegon is not only a member of one of the largest lumber firms in the United States, but is also a striking example of the wisdom of that governmental policy which welcomes to our shores those intelligent citizens of foreign birth who appreciating the beneficent character of our institutions, become Americanized to the fullest extent, and shed lustre upon American thrift and enterprise, and in no small degree add to our commercial strength and to the development of our national resources. Mr. Hume is a member of the firm of Hackley & Hume of Muskegon with large interests not only in Michigan but in Minnesota and the Southern States. He was born in the county of Down, Ireland, June 15th, 1848, where he obtained his education in connection with the schools of Belfast. Leaving school at the age of fourteen years he obtained employment in a grocery and hardware store, and continued in that employ until at the age of twenty-two years he decided to come to the United States, and reaching Muskegon found employ with George R. Selkirk, a lumber inspector, and in 1872 entered the employ of Hackley & McGordon, as bookkeeper, so continuing until in 1881, when, in connection with Mr. Hackley, he purchased the interest of the estate of Mr. McGordon, who had died the previous year, and the firm of Hackley & Hume was organized and has since continued in the operation of the mill plant at Muskegon, with extended operations in other localities. Mr. Hume at the time of becoming a member of the firm, had enjoyed facilities for becoming intimately acquainted with all the details of the lumber business in the woods, mill and sale of the manufactured product, such an acquaintance as would be the natural result of the daily manufacture of 175,000 feet per day, subsequently increased to as high as 32,000,000 feet per season, the stock for which was largely obtained from the company's lands in Clare county, where it operated twenty-two miles of logging railroad by which the log stock was delivered into the waters of Muskegon river at Jonesville, at which point it passed into the care of the boom company, for delivery in the mill boom at Muskegon. The firm has operated on the Muskegon river from its mouth to its source, taking from Clare county alone no less than 250,000,000 feet in the aggregate, while the manufacture of the mill from 1881 to 1895 comprised an aggregate of no less than 450,000,000 feet of lumber, together with a comparative volume of lath and shingles, all of which has found market at Chicago, Milwaukee, Buffalo and other points, a jobbing trade being carried on extensively with many other lake cities. The manufacture of lumber at Muskegon and at a majority of the manufacturing points of the state is drawing rapidly to an end, and with 1895 the mills of Hackley & Hume were like many others taken out of commission. But with the decadence of the lumber supply of Michigan, the enterprising firm of which Mr. Hume is a member, sought other fields of operation and in connection with H. C. Akeley, a former extensive operator at Muskegon and Grand Haven, the H. C. Akeley Lumber Co. of Minneapolis, Minnesota, was formed, and the forests of that state were levied upon for a log stock of 92,000,000 feet per year for the supply of the mills of that company at Minneapolis, and of this company, H. C. Akeley became president, C. H. Hackley, vice-president, and Thomas Hume, secretary and treasurer. This company has a capital stock of $500,000 and has an accumulated surplus at this time of $800,000, and its immense manufacture of lumber, lath and shingles, together with the product of an immense and well appointed planing mill, finds distribution in building the farm houses, barns and fences of the rapidly developing states of Iowa, Minnesota, the Dakotas and other new states. While the company operates largely upon its own lands, it is also connected with the Itaska Lumber Co. of Minneapolis, of which Mr. Akeley is also president, W. T. Joyce of Clinton, Iowa, secretary and treasurer, and Thomas Hume vice-president, Mr. Hackley being a director. This company controls large bodies of timber lands, with lines of railroad for logging purposes, and has been in operation since its organization in 1885-6. The firm of Hackley & Hume are also interested in the Bennett Bros. Lumber Co. of Sandusky, Ohio, in the wholesaling and retailing of lumber at that point, and are also interested in the Gardner & Lacey Lumber Co. of Georgetown, South Carolina, which has a capital stock of $150,000, in the manufacture of the excellent cypress lumber of the south, which finds its principal market in the eastern states, with large shipments to the West Indies. In addition to the cypress of South Carolina, Hackley & Hume have investments in large bodies of yellow pine in Louisiana, Mississippi and Arkansas, aggregating over 200,000 acres of pine and 70,000 acres of cypress, a large proportion of which were examined by Mr. Hume personally. Mr. Hume is president of the Sargent Manufacturing Co. of Muskegon, which is a heavy manufacturer of rolling chairs and other wood specialties. He is also vice-president of the Muskegon Chemical Fire Extinguisher Co., and of the Alaska Refrigerator Co. of the same city; he is treasurer of the Chase Bros. Piano Co. and vice-president of the National Lumberman's Bank of Muskegon.

Mr. Hume is a Republican in politics, although never aspiring to office. He was married in 1873 to Miss Margaret A. Banks, of Marshall, Michigan, daughter of Major Banks of that city, seven children, of whom six survive, being the issue. Not only in the city which for so many years has been his residence, but wherever he is known Mr. Hume stands among the most highly esteemed among the citizens.

Charles Turner Hills, of the firm of Ryerson, Hills & Co., Muskegon, was born at Bennington, Vermont, November 14th, 1821. He was the son of Turner and Adelia (Hubbell) Hills, the father being a native of Bennington, where he held several minor political offices. In 1834 the family removed to Bettstown, New York, and in 1837 the father with his son Aaron came west to Grand Rapids, Mich., whither a year later he was followed by his wife and family. Charles attended the district school at Bennington until thirteen years of age, when he secured a clerkship in a dry goods store at Troy, N. Y., but on the removal of the family to Grand Rapids accompanied them and was soon after engaged to drive a "breaking-up" team on the farm of Deacon Hinsdale at Paris, three miles east of Grand Rapids. In December, 1838, the family removed to Konkle's mill,

C T Hills

in what is now the eastern part of Alpine township, and in the spring of 1839 purchased a tract of forty acres of government land upon which they erected a shanty of two rooms, of which they took possession in November, 1840, their nearest neighbor being three miles distant. Here they resided until about 1846, and his father having died in 1842, leaving the care of the family upon the shoulders of Charles T., he built a house at Alpine, into which he removed his charge. Previous to the death of his father, Charles had assisted in the support of the family by aiding in the riving and shaving of shingles which found market at Grand Rapids, and was the first introduction of the young man to the field of lumber and shingle manufacture, in which he has since played a conspicuous part. In May, 1852, Charles with a younger brother spent two days in reaching Muskegon, and, building a shanty on Black Creek about four miles from the village, engaged in shingle weaving, removing a few months later to a point farther up the river, where they remained until September, 1853, when Mr. Hills engaged as clerk with the saw mill firm of Ryerson & Morris on a salary of $350 for the first year and $450 and board for the second, and continued with them in that position until 1859, when he took charge of the books of the firm. In 1865 Mr. Ryerson purchased the Morris interest and a new firm, consisting of Martin Ryerson, Charles T. Hills, Henry H. Getty and Ezra Stevens, was organized under the name of Ryerson, Hills & Co., Mr. Ryerson having removed to Chicago some years before, the management of the Muskegon business which had now attained large proportions, devolved upon Mr. Hills and Mr. Getty. In January, 1869, Mr. Stevens died, and the business was continued by the surviving partners until January 1, 1881, when Martin A., son of Martin Ryerson, was admitted to the partnership, and was in charge of the Chicago business of the firm until and subsequent to the death of his father in September, 1887, since which time the business has been owned and conducted by Charles T. Hills, Martin A. Ryerson and H. H. Getty, the two latter gentlemen residing in Chicago, so that the Michigan interests of the firm have since remained in charge of Mr. Hills. The mills of this company have evoluted from a single sash saw built by Theodore Newell about 1839, soon after which Mr. Ryerson entered his employ, and about 1841 took the mill to run by the thousand, and in 1845, in company with Samuel Green, purchased it. Green sold his interest soon after to a Mr. Knickerbocker, who after a short time sold his interest to Robert M. Morris, the firm becoming Ryerson & Morris. In 1851 John M. Williams, a lumber dealer at Chicago, became a partner for the disposition of the mill product at that city, and the business was extended to a yard for the sale of the mill product at Chicago, where this local firm was known as Williams, Ryerson & Co. for the next five years. In 1856 Mr. Williams withdrew, selling his interest to M. Ryerson, who placed the yard under the management of Read A. Williams for a time, and later forming a partnership with Watts T. Miller, Ryerson, Miller & Co. continued until 1859, when Miller withdrawing, the firm name again reverted to Ryerson & Morris as originally in 1845. It was during this transition period that in 1853 Mr. Hills began his clerkship, culminating in 1865 with the formation of the firm of Ryerson, Hills & Co.

The original mill underwent as many changes as did the partnerships, and under Mr. Hills' management became one of the largest operations in the State of Michigan. The original sash saw gave way in the "50's" to a mulay and this to a circular and gang, and with the rapid improvements of mill machinery which have marked the era from 1865 to, in fact, the present time, the mill of two to three thousand feet per day was transformed by the addition of wings to accommodate new devices for economical manufacture, and the addition of a new mill to still further increase the output to a capacity of 300,000 feet daily, or about 60,000,000 feet per year, with a record of having produced nearly if not quite 1,500,000,000 feet of lumber and 400,000,000 shingles, lath and pickets in the fifty-seven years of its operation to the time of its final dismantling in 1895.

In the conduct of this vast business, Mr. Hills was for more than forty years a ruling spirit, to whose excellent judgment is largely due the phenomenal success which has crowned all the parties in interest with the well-merited reward of their enterprise and business acumen. In the conduct of so vast a business and the production of so vast a quantity of lumber, fully 600,000 acres of land was denuded of its pine. The old mill in 1882 was torn down to give place to a modern structure with capacity for cutting 25,000,000 feet yearly; a second mill built in the adjoining township of Laketon, on Muskegon Lake, had an equal capacity, while the wasteful primitive single sash saw found a successor in rapid circulars and economical gangs; the "finger" feed gave way to steam feed, hand lifting with "cant hooks" found relief in steam "niggers;" the edging on top of the log was supplanted by the gang edger, while laborious "off bearing" found surcease in live rolls which dispensed with much heavy labor. In the Ryerson, Hills & Co. mills one may trace the evolutions of the saw mill industry from its primitive stage to that of great perfectness in mill machinery, and this evolution has in the main been accomplished, in this instance at least, under the wise direction of Charles T. Hills. Mr. Hills' interests are not of late years wholly confined to the white pine timber of Michigan, he being the individual owner of about 75,000 acres of the valuable long leaf yellow pine of Greene and Perry counties of Mississippi, the value of which has increased in the ratio of increased production of southern woods and their substitution for the nearly exhausted timber of the north.

Mr. Hills has taken an important part in all those enterprises which of late years have done so much for the advancement of Muskegon's material interests. Except in 1852, when he held the office of Supervisor of Alpine township, and in 1876, when he was elected treasurer of of Muskegon county, he has avoided public office, but in business enterprises he has taken a more active part. From 1876 to 1887 he was president of the Muskegon National Bank, of which he is still a director; he was one of the incorporators of the Oceana County Savings Bank at

Hart, and has held the presidency since its organization in 1887; he was deeply interested in the Muskegon Booming Company, of which he has served many years as president (1868-1889) and as both secretary and treasurer, being still a director.

He has been prominent in Masonic circles since 1863, in which year he was raised in Muskegon Lodge No. 140, F. & A. M., and has held all the various offices in Lodge, Chapter and Commandery, being a charter member of each of those bodies. In June, 1874, he was elected deputy grand commander of Knights Templar, Michigan jurisdiction. In 1886 he was elected for the fifteenth time eminent commander of Muskegon Commandery No. 22, K. T. He received the grades A. A. S. R. to the fourteenth grade at Grand Rapids April 24th, 1868, and the degrees from 14th to 32d at Detroit, May 13th, 1868. In August, 1875, he received the 33d and last degree at Portland, Maine, whither he went for that purpose. He is one of the five members allowed to Michigan, of the Royal Order of Scotland, the degree of which he received in Milwaukee, September 18th, 1878.

As may be inferred from the above Mr. Hills is an eminently social man, one who has the best interests of his fellow man in keeping, and recognizes the all-important and essential virtues of "brotherly love, relief and truth." As a business man, we need only point to his record of advancement from poverty to ample wealth, in the carving out of his own fortune, and to the confidence and esteem of his fellow citizens. As a philanthropist and benefactor, only that multitude may testify who have been the recipients of his unostentatious benevolences which have been neither niggardly nor stingily bestowed, while yet no trumpets have blazoned them to the world.

Broad in his views, he has ever been recognized as the promoter of everything which was calculated to advance the educational, social and moral interests of society, and justly stands upon the topmost pinnacle of honor, in the confidence and esteem of his fellow citizens.

There is something hedging about the grand old forests which enlarges and ennobles those who wander among the groves of pine and breathe the aroma which exhales from the balsamic boughs, or that which in the saw mill mingles with the whistling of the saws, broadening and enlarging, bringing out the best in the life and character, and when as in the case of Mr. Hills, there is native talent, backed by energy, honesty and integrity of character, we venture little in asserting that we need look no farther to find the best citizenship and the highest regard for those virtues which shall one day transform our earth into an Eden.

Mr. Hills, November 5th, 1854, was married to Miss Jane M. Wheeler, of Waukegan, Ill., who bore him six children, of whom but two, Charles Hubbell, born December 24th, 1863, and Julia L., born October 6th, 1868, survive. Mrs. Hills died August 12th, 1876, and on June 12th, 1878, Mr. Hills married Miss Margaret McIntyre, of Kewaunee, Ill.

Alexander V. Mann.—Few men can boast of longer connection with the lumber trade of Muskegon or of the State of Michigan, than Alexander V. Mann, who started in the business at Muskegon in 1857. Mr. Mann was born in Somerville, Somerset county, New Jersey, July 18th, 1834, the son of John W. Mann an Attorney at Law, who died at Somerville, N. J. in 1864. Alexander spent his early life on a farm and with but limited facilities for obtaining an education, remained there until he was twenty-one years of age, and in 1855 came to Michigan and found employ in a dry goods store in Grand Rapids, remaining there until in 1857, when with a small capital he removed to Muskegon and in a limited way embarked in the lumber business by purchasing a small tract of timber land on Cedar Creek north of Muskegon, and proceeded to cut the timber which he had sawed at a mill in Muskegon, marketing the product in Chicago. Although the panic of 1857 bore hard upon him as it did upon all business men, calling for strict economy and the highest class of business energy during that and succeeding years, Mr. Mann continued to operate upon the Muskegon and its tributaries purchasing such timber tracts as his limited but increasing capital permitted, logging, manufacturing and shipping to the markets of Chicago and Milwaukee, and making a specialty as well of hewed timber for bridge and railroad work, the trees for which he obtained in the more immediate neighborhood of Muskegon (the mills of that period confining their operations more especially to short lengths, stock sizes and thin lumber), and in this branch of specialty, Mr. Mann built up a large and yearly increasing trade. In 1868 Mr. Mann formed a partnership with John W. Moon and Henry Bourdon, which continued until 1871, at which time the firm purchased the mill property of Shupe, Haines & Weymouth, at Lakeside, now a part of the city, and continued to operate until the death of Mr. Bourdon in 1871, when the surviving members formed the firm of A. V. Mann & Co., which has continued until the present time. In 1872 the mill was destroyed by fire and the firm rebuilt with a larger and better appointed mill, combining the latest improvements for lumber manufacture. The old mill had capacity for sawing 60,000 feet per day and this quantity was increased in the new structure to 125,000 feet per day. This mill the firm operated until 1890, when it was sold to Hovey & McCracken, the timber resources of the company after a draft upon them for twenty-three years, showing too great signs of depletion to warrant continuance, the lands of the company in Michigan being mostly cut off. During the continuance of Mr. Mann in the business since 1857, he together with his business connections, has handled between seven and eight hundred million feet of timber and lumber, a quantity equaled in the operations of but few of the lumbermen of the State of Michigan, and to the manufacture of this vast quantity of lumber Mr. Mann gave his personal attention, and was at the same time in charge of the financial department of the business. His purchases of pine lands have naturally amounted to hundreds of thousands of acres, and his manufacture has given employ to many other mills than his own. During the last ten or twelve years the firm cultivated a car trade direct with retailers at interior points of all sections of the country, while in the more extended distribution by vessel, they have been the owners of a number of lake craft, including the steam barges Hickox and Powers, and several sailing vessels. After closing out the saw mill in 1890, the firm made extensive investments in the valuable pine and hardwood lands of Grant and Jefferson counties in Arkansas, where they made purchase of 20,000 acres; they are also interested in large tracts of the valuable red cedar and Douglas fir lands of British Columbia, located upon the Columbia river. Mr. Mann at an early day in the history of Muskegon became interested in the banking business, his father-in-law, T. J. Rand, having started the first bank in that city in 1859, in which at a later day Mr. Mann became interested and on the death of Mr. Rand in 1871 was appointed administrator of the estate of that gentleman, and in the spring of 1872 organized the Lumberman's National Bank of Muskegon, holding the position of vice-president for ten years, and since that time the presidency of the same. A Democrat in politics, Mr. Mann while often urged to accept offices of political trust and responsibility, has been too busily engaged in the conduct of his large business interests to devote his time to politics. He was married in 1860 to Miss Sarah Rand of Muskegon, one son, William H., and one daughter, Eliza B., being the issue. The son, William H. Mann, is a member of the firm of Mann, Moon & Co., successors to A. V. Mann & Co., and is engaged in the prosecution of a lumber business by car shipment, with headquarters at Muskegon.

Besides being interested in banking in Muskegon, A. V. Mann is interested in a bank at Ashland, Wis., is also a director in one at Grand Rapids, where he has other large interests. Mr. Mann has always, in every way, helped to develop the growing interests of manufacturing enterprises in his own city, and has as much money invested there as any other one individual citizen.

As a lumberman, a banker and a public spirited citizen, Alexander V. Mann holds a deservedly high place in the estimation, not alone of the citizens of Muskegon, where for so long a period he has resided, but as well in all commercial circles into which his extended business relations have caused him to be well known, and appreciated for his sterling qualities.

The Hon. John W. Moon of the well-known firm of A. V. Mann & Co., lumbermen, of Muskegon, Mich., was a native of Michigan, having been born in the township of Van Buren, Wayne county, January 18th, 1836, to which place his father, Stewart C. Moon, a native of Ontario county, New York, had removed two years previously, settling at Ypsilanti, where he for several years operated a water saw mill on the Huron river, in the manufacture of white wood, basswood, black walnut, oak, etc., found in plentiful supply in the forests of that neighborhood, and in connection with the mill was engaged in farming. Mr. Moon (pere), who was born in 1798, spent the later years of his life with his son, the subject of this sketch, and died at Muskegon in 1892 at the ripe age of 92 years. It is difficult for the mind to realize the vastness of the change which has come over the State of Michigan during the lifetime of this venerable pioneer, and to him the contrast between the water mill of 1834, cutting perhaps not more than one thousand feet of lumber per day, and the modern steam mill with capacity almost unlimited, was no doubt like the joining together of two eras in life's history. He was a man of energy and enterprise, and was held in the highest esteem by all who came into business or social relations with him during his long, busy and eventful life.

John W. Moon began his career as a lumberman by working in his father's mill when not engaged in the duties of the farm, or of the village school, for he was brought up neither to be afraid nor ashamed of work, and heredity marked him as a busy boy and energetic man. His mother was Mary A. Snyder, of the sturdy ancestry known as "Jersey Dutch," noted as a race for their thrift, honesty and steadfast purpose in life. She was born in 1804 and was spared to the age of seventy-six, passing away in 1880, from the home in Jackson county, where they had resided since 1852.

John W., in 1854 being now eighteen years of age, sought out the Grand river region, and with another boy of about his own age, took a contract from Nathaniel Slaght for cutting a half million feet of logs on the Flat river, for which they received the munificent compensation of thirty cents per thousand feet, furnishing their own tools and boarding themselves. In the spring following, Mr. Moon found employ in the saw mill of D. T. Fargo, of Greenville, and was soon promoted to the position of head sawyer, his experience in his father's mill now standing him in good hand, not alone in the filing of the mulay saw, but in the purchase and scaling of logs and the proper handling of lumber. He remained in this employ during 1855, and in the following year went to Muskegon, where he was employed by the Beidler Bros. (Henry and Jacob, whose biographies will be found elsewhere in this volume) in their mill at that place, remaining in that employ as a sawyer until the fall of 1862, when he was employed by George R. Roberts & Co. (which in 1865 became Roberts, Calkins & Hull, and in 1868 Roberts & Hull), with whom he remained in the capacity of foreman until 1867, when he took the mill to run "by the thousand." In the spring of 1868 Mr. Moon formed a partnership with A. V. Mann and Henry Bourdon of Muskegon, which continues to the present day. The firm of A. V. Mann & Co. now purchased the saw mill erected by Shupe, Haines & Weymouth, in the township of Lakeside on Muskegon Lake, and operated it from the time of its purchase until 1891, at which time they disposed of it, together with 20,000,000 feet of standing timber, the remnant of their extended operations for nearly a quarter of a century, to Hovey & McCracken of Muskegon. It must not be supposed, however, that the mill had undergone no changes during that long period, it having been destroyed by fire in 1872 and a new and (for that day) model mill succeeding it the following year, while with large yearly outlays in repairs it is doubtful if much of the original mill remained at the time of its sale to Hovey & McCracken. The evolution of the saw mill during the period from 1855 to the present day is a study of great interest, as with the greatly increased capacity of a mill the wear and tear was abnormally great, and it was no unusual thing for the proprietor of a large mill to expend thousands of dollars each winter in keeping his mill up to the most economical standard of manufacture, and in the introduction of new labor-saving appliances, and A. V. Mann & Co. were no exception to the rule. During the more than a quarter of a century of their copartnership the firm's operations had not been exclusively confined to the work of their own mill at Lakeside, as they held large bodies of timber on Little river and upon Clam river, and as well upon various tributaries of the Muskegon, being always in readiness to purchase any valuable tracts which might become available, and thus acquiring large bodies of valuable pine in many localities, in the manufacture of which they frequently employed mills other than their own.

The original mill purchased by the firm contained a mulay and circular saw, the reconstructed mill of 1873 contained two circular saws, one of which was soon after removed to make room for a gang, which gave the mill a daily capacity of 125,000 feet. The market of those days was by vessel to Chicago and other lake ports, the lumber being loaded direct from the saw without cross piling, but in 1870 A. V. Mann & Co. became the pioneers of the custom of cross piling and thus in a measure preparing the lumber for use before shipment, a custom which later was universally adopted by the manufacturers of Muskegon. Another innovation inaugurated by this firm was in the institution of a regular pay day for their employes, leaving their men at perfect liberty to do their trading where it best pleased them. The business of the firm in its steady and continuous growth brought customers not only from Chicago and Milwaukee, but the excellent quality of their stock and the manifest care which was taken of it, attracted the attention of customers from many eastern points and as a specialty was made by the firm of the manufacture of thick "uppers," they enjoyed for many years a large demand from Ogdensburg and other eastern points, much of their cut being distributed to New York, Montreal and an English market, where it took a deservedly high position in the trade. The bulk of their business was, however, with the cities of the lake, and the firm owned the steam barge Hickox which plied between Muskegon and the various ports of Lake Michigan to the Straits of Mackinaw. Their office has always remained at Muskegon, and from it the firm has manipulated during the period of the partnership commencing in 1868 and including 1891, a no less volume than from 600,000,000 to 800,000,000 feet of lumber, the major part of which found market at Chicago. Their mill was located about half way between the city of Muskegon and Lake Michigan, and employed about seventy-five men in its daily operations. Recognizing the infallible signs of a decadence in the timber supply of Michigan, the firm in 1887-8 began a series of investments in the excellent yellow pine of Grant, Jefferson, Pulaski, Dallas and Hot Springs counties of Arkansas, and is to-day among the most extensive holders of pine lands in that state. They are also interested in large bodies of white and sugar pine and red cedar on the Upper Columbia river of British Columbia. It is needless to add that Mr. Moon was a practical lumberman, and has probably "looked" as much timber land as any other man in the State of Michigan, the successful operations of the firm being in no small degree due to his good judgment in selecting choice and profitable investments. The firm is not, however, out of the lumber business at this writing, for their sons, under the firm name of Mann & Moon, still carry a large stock of lumber near the site of the old mill, doing a "car trade," handling the purchased stock of various Michigan mills and as well as handling stock cut at their mills in Arkansas. Mr. Moon was interested in and president of the Alaska Refrigerator Company of Muskegon, and was president of the Muskegon Savings Bank, of which he was one of the organizers in 1887. He was a stockholder in the Lumberman's National Bank of Muskegon, and president of the Michigan Fire Ladder & Truck Company of Grand Rapids, Michigan. He was also largely interested in the west, owning and operating an extensive stock farm near the city of Red Cloud, Nebraska. In politics Mr. Moon was a Republican, and was elected by that party at various times to offices of trust, including that of township treasurer, supervisor, president of the village, etc., etc., and in 1885 was elected to represent the 21st senatorial district in the State Senate, receiving the honor of a re-election at the expiration of his term of office. Although never considered a politician or an office-seeker, Mr. Moon responded to the calls of the Republican party at different times as a matter of duty. In 1892 the 9th Michigan district was represented in Congress by the Hon. H. H. Wheeler, a Democrat of Ludington, and by what was known as the Democratic "Gerrymand" of the legislature of 1891-2 it was hoped to hold the district to the Democratic faith; Mr. Moon was prevailed upon to accept the nomination and was elected, but having redeemed the district declined a renomination. In 1895 also, he declined to yield to the solicitation of his political friends and permit his name to be used in the convention nominating a gubernatorial candidate. While in Congress he was assiduous in looking after the interests of his entire district, being influenced by no petty considerations of a merely local nature, and obtained an appropriation of $50,000 for the harbor of Frankfort and $25,000 for that of Onekema, both of which are located at the north end of his district. His intimate knowledge of timber lands rendered him a valuable member of the committee on public lands and government reservations in the northwest.

As an active member of the Methodist Episcopal Church, his name was not unknown beyond the boundaries of his own city as one who gladly gave of not only his time and talent, but of his means, for the advancement of the cause of religion, in the enlightenment and regeneration of his fellow man.

It is not needful that we should further dilate upon the character of a man who had been found not only diligent but upright in business, faithful in the discharge of his duties as a citizen, unselfishly considering his success in life but as a measure of that stewardship which claims deep sympathy with the welfare of the fellow man and in all the relations of life gaining the confidence and esteem of his fellow men. Of such men the simple recital of their business career is the best measure of their usefulness and of the integrity which is worthy of the emulation of all. Mr. Moon died suddenly and peaceably at his home in Muskegon on April 5th, 1898, from cerebral hemorrhage, which caused instantaneous unconsciousness, followed by speedy demise, and in his death Muskegon lost one of its most valued and useful citizens.

John Torrent.—John Torrent the well-known lumberman of Muskegon was born at Watertown, New York, November 20th, 1833. He was the son of Thomas and Mercy (Hamilton) Torrent, natives of Wiltshire, England, who came to this country but a short time previous to the birth of their son John, and settled at Watertown, where they resided for a short time and then removed to Canada, settling near Kingston, where they followed the occupation of farming until the death of Mr. Torrent in about 1840, at which time his widow came west with her son John, residing with him at Grand Haven, and passing to rest at Muskegon in 1890, at the ripe age of 84 years. John was one of five sons and four daughters born to his parents, three of the brothers (Esau, Thomas and Elias) being deceased, the fourth, Ananias, now residing at Chippewa Falls, Wis., for many years a lumberman, and at one time a resident of Muskegon. Of the daughters, Betsey (deceased) was the wife of Joseph Hamilton, a resident of Canada; Martha, the wife of M. Tanyher; Mercy Ann, wife of Richard McQuinn; and Mary A., the wife of Henry Durham.

John Torrent lived with his parents on the farm until he was sixteen years old, obtaining such education as was afforded under the excellent school system which about that time had been inaugurated in the province of Canada, under the influence of Rev. William Ryerson, than whom no wiser educator has left his impress upon the educational interests of Canada or the United States. About 1849 or 1850 John found employment in a saw mill, the section where he resided being at that time in the heyday of its development as a lumber manufacturing region, shipments from the Bay of Quinte being noted in earlier pages of this history, as having been made as early as 1780. In 1854 Mr. Torrent came to the States and settled at Grand Haven, finding employment as head sawyer in the Ferry mill at Ferrysburg where he remained but six months and then went to Flat river near Greenville where he spent the winter in the employ of Doctor W. T. Powers (a sketch of whom appears elsewhere in this volume) running his saw mill until spring, when he returned to Grand Haven and ran the Ferry mill during the seasons of 1856 and 1857. In the fall of 1857 he went to Muskegon and set up a circular saw for L. G. Mason, which had been made by Mr. Ferry at his machine shop in Ferrysburg, expecting on the completion of the work to return to Grand Haven, but receiving an offer from Mr. Mason of $700 and board to remain with him, he accepted it, his duties being the charge of the mill and the filing of the saws, and at the expiration of the year he was re-engaged for another year with an advance of salary to $1,000 and in addition to his other duties was placed in the foremanship of the mill. He now (1859) moved his mother to Muskegon and made that place his permanent residence. In the spring of this year Mr. Torrent was married to Miss Caroline Honner, daughter of Thomas Honner, Esq., of Amherstburg, Ontario. During this season he purchased from Mr. Jones of Grand Haven the machinery of a small saw mill belonging to that gentleman, paying the sum of one thousand dollars for the engine and boiler, which he removed to Muskegon, and purchasing the site now occupied by the Temple Curtain Roller plant, on the lake front, he erected a temporary mill for the manufacture of shingles, and ran it for two years. Getting a little ahead in his finances, he in 1860 tore down the temporary mill and erected a larger one, putting in an upright saw with shingle machinery. This mill he ran for a couple of years and in 1862 sold it to Thomas Turnbull, and for a couple of years devoted his time to the purchase and sale of logs and lumber. In 1865 he purchased another mill site at Lake Side, where he built a circular saw mill, which after a couple of years he sold to his brother Esau, who operated it for the next four years. In 1867, Mr. Torrent entered into partnership with Phillips & Brown who had a mill at the mouth of the Muskegon river which the new firm rebuilt to a capacity of 150,000 feet per day, and Phillips, Brown & Co. operated for the next two years, at the end of which Mr. Torrent sold his interest to C. D. Nelson. During this time he had resided at the mill, but he now moved up to Muskegon, and occupied his time in dealing in real estate, logs and lumber, until 1869, when he purchased the mill of George Arms, at a cost of $30,000, and after modernizing it, ran it for two years, during which time the Muskegon Booming Co. having possession of a portion of the property, Mr. Torrent brought suit for its possession, and after three years' litigation a settlement was arrived at through the purchase by the Boom Company, for the price of $62,000. After being out of business for a time, he in 1871 purchased the mill of Phillips & Brown in North Muskegon, they contracting to stock it for three years at $3.50 per thousand feet. In about three months after the mill was put in operation under this contract, it was destroyed by fire, $40,000 being realized from the insurance, and Mr. Torrent compromising with Phillips & Brown, they paying him $15,000 for the cancellation of the contract; he then proceeded to the erection of a large mill having capacity for sawing 200,000 feet per day, and had run it but about a year when it, too, was destroyed by fire. A year later he had another mill of about the same size, which he continued to operate until its destruction by fire shortly after. Nothing daunted, Mr. Torrent built another mill of about the same size for the manufacture of lumber, and he then built a separate mill for shingles, operating both. Some time later he built still another mill near the others and operated the three, and soon after, still another, so that he had four mills in operation.

These were the halcyon days of the lumber trade of the northwest, and from 1871 to 1883 Mr. Torrent extended his business until he had at one time eight mills manufacturing lumber at Muskegon, and owning a large frontage; he sold several mill sites to other parties, after having built the entire town of North Muskegon with all its docks, mills, stores, etc. In 1878 the Torrent & Arms Lumber Company was incorporated with a capital stock of $125,000, Mr. Torrent being elected president and general manager, a position held by him until 1883 when he sold his stock in the company, and in 1884 purchased the C. Davis mill which he still operates. In 1887 he purchased the White, Swan & Smith mill, which he operated until it was burned in 1890. In 1886 he had purchased the mill plant of the S. C. Hall Lumber Company, but sold it soon after. In 1885 he purchased the extensive plant of Hannah, Lay & Co., at Traverse City and Long Lake, with an estimated quantity of 240,000,000 feet of standing timber, for which he paid $780,000. After running the business long enough to cut out 100,000,000 feet of the timber, he disposed of the balance at a handsome profit in 1886. As early as 1869 Mr. Torrent formed a partnership with Patrick A. Ducey for the purchase and sale of timber and logs, and their operations reached as high as 150,000,000 feet per year, and have continued to the present time. Among the operations of this company was the purchase of a timber tract in Franklin county, New York, which Mr. Ducey was later engaged in lumbering. They also purchased a large tract in the Lake Superior country, which, in a division of property, fell to Mr. Torrent, and was subsequently sold by him. This firm operated principally upon the Muskegon river, and its tributaries, and have owned no less than one hundred and fifty thousand acres of pine lands which they have logged and made into lumber, their cut for 1886 amounting to 125,000,000 feet of logs. In the course of his business Mr. Torrent has manufactured an amount in excess of 1,000,000,000 feet of lumber, and has operated at Muskegon, Ludington, Manistee, Whitehall, Traverse City, Sault Ste. Marie, and other points, and is at this writing taking the timber from a large tract on Lake Superior, and is operating a mill of 25,000,000 feet yearly capacity at the "Sault," and one of 20,000,000 feet at Muskegon, the two latter being the only ones he has lately had in commission, at the former of which were resources of about 16,000 acres of standing pine, including white and norway, which will find market at Chicago. This mill he built in 1891, and it is equipped with a full complement of the most modern machinery for lumber manufacture. He has also been considerably interested in vessel property, owning the schooner H. B. Moore and the steam barge Ida M. Torrent (named after his daughter) but has mainly confined his operations to logs and lumber. He owned the steam barge Nellie Torrent (also named after a daughter) and a sailing vessel, the R. S. Farr, and built the tug John Torrent, and also the tug North Muskegon, all of which were used in the prosecution of his business, in the handling of logs and the transportation of his lumber to market.

Few men have personally investigated more lands than has Mr. Torrent, whose researches have not been confined to Michigan, he having as early as 1869 investigated the forests of California and Oregon, but not satisfied with the outlook decided to make his investments in the pine of the northwestern states.

Mr. Torrent has always been interested in improvements in saw mill machinery, rightly believing that anything which would increase the efficiency of a mill added to its profits. In connection with his brother Esau, he invented the "steam nigger," or log turner, one of the most efficient adjuncts of the saw mill, and has since taken out several patents on its improvement. His brother Esau patented a "double edger," by which the capacity of the circular, and indeed of all saws, was indefinitely increased, the main saws of a mill being restricted previously, to the ability of the edging machinery. He was also the patentee of an endless chain for hauling logs into the mill. Mr. Torrent is in all respects a practical mill man and no less practical woodsman, his experience as an estimator enabling him at once to judge of the character and value of a tree, whether individual or as a tract. That he has been one of the most active among the business men of Muskegon is apparent from the details of his operations which have preceded. In the changed conditions of the lumber trade his Muskegon business has latterly been a car trade with the retail yards of the country. He was one of the first in the western part of Michigan to appreciate the advantages of cross piling lumber, as it came from the saw, thus in a measure preparing it for use before shipment from the point of manufacture, and this he began as early as 1873, a custom since universally observed. Mr. Torrent has been one of the largest operators in Muskegon real estate and has erected more fine buildings in the city than any other one man, being reputed the largest holder of real estate in the city. In 1889 he became the purchaser of the extensive tract for many years occupied by the mill and yards of the Ryerson Hills Co.; he is also a large holder of Chicago property. In politics Mr. Torrent is a Republican, and has held the offices of justice of the peace, alderman and for three terms was mayor of the city, and has been prominently mentioned for Congress. He withal is not a politician, and has striven to avoid the offices which the people have sought to thrust upon him. In religious convictions he is an Episcopalian. He has had a family of seven children of whom five were sons. Of the daughters, Ida is the wife of H. O. Lange; Nellie, who was the wife of D. M. Stever, is dead. Of the sons, Squier, Fred, John, Ray, Lewis, Fred and John are in the Merchants' National Bank of Muskegon, established by Mr. Torrent in 1883, and of which he has since been president except for one year. He also owns stock in other banks of the city. Mr. H. O. Lange, his son-in-law, is cashier of the Merchants' National, and a member of the firm of Torrent & Co., operating the saw mill at Muskegon. Mr. Torrent was for the last five years previous to the expiration of its charter, president of the "Muskegon Booming Co." and is president of its successor, the Muskegon River Booming Co.

The history of the lumber trade of the northwest presents no more striking example of the power and influence of one man, in its development, than is afforded in this brief history of one of its leading operators.

Alexander Rodgers Sr. of Muskegon was born in Edinburgh, Scotland, in 1824, and at the age of twenty-four years emigrated to the United States (1848) in the days when the clipper ship was in its glory, and ocean steamships scarcely had begun the work of monopolizing the carrying trade, and the twenty day passage with which his journey was favored was esteemed a marvel in ocean sailing.

Mr. Rodgers was a machinist by trade and on his arrival secured employment in a machine shop at North Sandwich, Massachusetts, where he assisted in building a steam hammer for the government—probably one of the first made or used in the United States, after the Kirk patent. There were then no blast furnaces in this country; railroad bars were brought from England and a majority of the roads were laid on a flat bar spiked to bed timbers on top of the ties. Mr. Rodgers reached Muskegon in 1858 and bought a small machine shop which Ryerson & Morris had secured from a man who could not make it pay, and which, while they found it useful in the repair of their mill, they did not care to operate. In this small way Mr. Rodgers began, and being ingenious, fertile in expedient, and a good workman, soon became indispensable to the rapidly growing saw mill industry of Muskegon, there being no repair shop nearer than Spring Lake, fourteen miles distant. It took all of Mr. Rodgers' inventive genius to meet the varying wants of the mills in the various break downs incident to the crude mechanism of the mills of the day, but making a study of the wants of the manufacturers, he not only met the exigencies as they arose but set his wits at work to add new devices which should increase the utility and reduce the expenses of the mills. The gang edger of the Rodgers patent, and no less the "steam nigger," which supplanted the heavy lifting with cant hook and hand spike soon made the name of Rodgers most familiar in the saw mill world, and the little shop of his earlier advent became a hive of industry in the manufacture of all those appliances which modern saw milling demanded, from a cant hook and steam nigger or gang edger, to a steam engine, a circular husk, or a saw mill complete. In 1875 Mr. Rodgers became a lumber manufacturer, building a mill at Lakeside (now Eighth ward of Muskegon) which he operated until its removal to Tomahawk, Wis., in 1888, the facilities for obtaining timber at Muskegon being greatly reduced. This mill was first class according to the standard of the day, which by this time included a majority of the devices which have since been in vogue, and with two circulars and one gang had capacity for the manufacture of from 20,000,000 to 25,000,000 feet per year. Upon its removal to Tomahawk in 1888 it was supplied with one circular and one band and was operated under the name of the Sound Lumber Co., Mr. Rodgers' son Hugh being associated with him in its management. Mr. Rodgers was for many years one of the most enterprising and valuable citizens of Muskegon, being intimately associated with many of its most important enterprises. He was a stockholder in the E. H. Stofford Co., Heap Manufacturing Co., and Muskegon Valley Furniture Co., beside being at the head of the Rodgers Iron Manufacturing Co. He was vice-president and a director of the old Lumberman's National Bank, until it became the National Lumberman's Bank, and had since been a director under the new organization. He in politics was a staunch Republican, and while not a politician nor seeking office, had served the city in an aldermanic capacity. He was a member of Muskegon lodge No. 140 F. & A. M., Muskegon Chapter No. 47 R. A. M., and Muskegon Commandery No. 22 K. T. Mr. Rodgers died in 1897 at the ripe age of seventy-three years, leaving a wife, five sons and two daughters to mourn the loss of an exemplary husband, a loving father and a good citizen.

The Thayer Lumber Co. is one of the largest concerns of the kind in the State, and one of the oldest plants in use. It was first built by L. G. Mason and P. Davis, and was operated by them up to 1872, when Thomas Monroe became interested in the plant and the firm became known as the Mason Lumber Co., and for a period of six years did a very lucrative business. In 1878 the plant was purchased by Nathaniel Thayer of Boston, and in 1881 it was formed into a stock company with a capital of 650,000, and for many years their business was one of the most extensive in the State. After cutting down their large stock of standing timber they reduced their capital stock to $162,000, which is ample for the successful conduct of their enterprise. Since the death of Mr. Thayer, the plant has been owned by the estate, and the management of the local office is under Thomas Munroe, superintendent, and Hugh Park, secretary and treasurer, while Nathaniel Thayer Jr. of Boston is president. The company operated the old Mason plant up to 1885, then bought the mill owned by White, Swan & Smith, and after operating it one year sold to Torrent & McLaughlin. About this time they purchased the Bigelow Mill property, near their old mill, remodeled it, fitted it up with fine new machinery with band saws, and increased its capacity to 90,000 feet a day. They also remodeled their old mill to two circular saws and a gang saw, and with a capacity of 150,000 feet per day. The yards and plants cover over twenty acres, including extensive docks and booms and excellent railroad facilities, being located on the C. & W. M., and the G. R. & I. railroads, doing an extensive trade by rail and lake, over which they ship about 35,000,000 feet of lumber annually with 30,000,000 shingles. They have cleared large tracts of land along the Muskegon and other rivers, and are now operating in Kalkaska and Missaukee counties, cutting mostly pine and hemlock and making a specialty of cedar shingles. They employ 200 hands in mills and yards and about 100 in the woods. The Thayer Lumber Co. has moved 600,000,000 feet of lumber, giving special attention to heavy lumber for railroad and bridge work. The local managers of the Thayer Lumber Co. are men well known to the trade, and are acknowledged experts in their line. Thomas Munroe is a native Illinoisan. He has been connected with the one plant since 1870, at which time he entered the employ of Mr. Mason, but his attention has been devoted to other enterprises also. Mr. Park was for many years auditor of the C. & W. M. railroad, but in 1878 was made secretary and treasurer of the Thayer Lumber Co., and has since made his home in the city of Muskegon. He is a practical and talented business man and faithfulness itself to the interests of those he serves.

This company in the spring of 1897 purchased a large tract of pine timber of John Canfield, which is situated in Kalkaska and Missaukee counties, containing over 200,000,000 feet of excellent quality white pine and norway. They have lately contracted with the C. & W. M. railroad to extend their track from Van Buren into this timber, and by the first of January, 1898, began to receive logs at their mills direct by rail, making a specialty of car sills, bridge and bill timber of all kinds which they will be enabled to supply at all seasons of the year.

Newcomb Farwell McGraft.—The gentleman whose name heads this sketch has been a potential element in the growth and development of the timber interests of the State of Michigan, and is one of Muskegon's distinguished business men, of whom not one stands higher in the estimation of the public than does he. Although born in Lockport, New York, March 9, 1840, in his veins flows the blood of the "Canny Scot," and the sturdy English, which he inherited from his father, James McGraft, and mother, Rachel Farwell, respectively. When he was about three years of age he was left fatherless, and his widowed mother, being in very straightened circumstances, had all she could do for a number of years to maintain herself and her two little children, the youngest of whom was but an infant at the time of the father's death. She was finally compelled to part with them and Newcomb went to live with a farmer, but not liking his new home he soon left this place, and for a number of years thereafter made his home at various places, working for his board, clothes and winter schooling. At the age of thirteen he hired out to David Cleveland for $6 a month during the summer, with the privilege of doing chores throughout the winter for his board and schooling. Up to this time his road had been a rough and rugged one to travel, much like that of many American lads who have risen to eminence in later years. Here he earned his first wages and one year later when Mr. Cleveland sold his farm and came to Michigan, Newcomb came with him and for two years thereafter assisted him on a farm which he purchased near Flint. In the following spring he worked at driving logs down the Flint river and gained the reputation of being a skillful log driver, his reward being the full charge of the drive on that river a year later, from Lapeer to Saginaw, his crew consisting of nearly one hundred men. After this he commenced his saw mill work, first accepting a position in Flint, and later one in the saw mill of Charles Merrill & Co. of Saginaw. Here he worked during the summer months until he was twenty-four years old, and wisely pursued his studies during the winter months, and during the years of 1865 and 1866 he attended school at Albion College. Upon his return to Saginaw, he accepted a position with Brown, Nester, Little & Hoyt, to look after their lumbering interests on the Saginaw river, which position he ably filled for four years. In 1871 he accepted a position offered him by Messrs. Charles Merrill and Thomas W. Palmer of Detroit to go to Muskegon and take charge of their lumber interests there, and for two years was thus employed. By persistent energy and a judicious investment of his earnings he had by this time accumulated what to many would seem a comfortable fortune, but in that year he formed a copartnership known as "McGraft & Montgomery," and a saw mill was erected near the present site of the McGraft Lumbering Co., in which business Messrs. Merrill and Palmer were interested. This plant cut from 75,000 to 80,000 feet of lumber per day, which was sold in Chicago markets and at other lake points, they owning the vessels C. S. Fick, Grenada and Quickstep, which they used in carrying on their trade. This firm continued until 1882, when the McGraft Lumber Co. was formed, and Mr. McGraft became, and still is its president, Thomas W. Palmer being vice-president and G. D. Smith, secretary. The capital stock amounted to $75,000 and the plant, located on the south shore of Muskegon lake, has a capacity of 60,000 feet per day, being fitted with circular saws and a shingle machine. It has splendid facilities and a planing mill which was erected in 1891 and in which an extensive manufacture of sash, doors and interior finish is carried on. An enormous trade is realized with other cities and states, and a very large retail business is also done. Their mill does not do all their cutting, but each year they purchase fully 4,000,000 feet of lumber, of which they handle all kinds. This is one of the most extensive factories in Muskegon, and the company is one of the strongest business houses. For years Mr. McGraft was a director in the Muskegon Booming Co. and was its president from 1880 to 1883, during which time Muskegon did its greatest lumber business. Mr. McGraft was instrumental in securing for Muskegon the Muskegon, Grand Rapids & Indiana railroad, and also the Toledo, Saginaw & Muskegon railroad, and is now vice-president of the former. He is also vice-president of the Muskegon Valley Furniture Co., vice-president of the Muskegon Flouring Mill Co., president of the Muskegon Temperance Library Association and is a stockholder in several other industries. Besides this he is connected with two banks, and is a large owner of real estate in and around Muskegon, including one of the finest farms of about 400 acres in the county, in which he takes great pride. His desire to see Muskegon prosper has led him to interest himself in many different enterprises, and in 1893 the city acquired through purchase from him, a beautiful and well located public park, which having sold to the city for the sum of $100,000, Mr. McGraft generously placed the money in the hands of C. H. Hackley as trustee, to be disbursed at the discretion of the Chamber of Commerce of the city, in securing the location of new manufacturing industries, thus giving new life to the city whose lumber interests were on the wane. Mr. McGraft has never been an office seeker, although a staunch Republican and a member of the Republican State Central Committee from 1888 to 1892. In

R. H. McGraft.

1892-93 he was chairman of the Republican Congressional Committee, and in 1894-5 was Mayor of the city of Muskegon. Through his own native talents he has met with remarkable success and he is one of the wealthy lumbermen and business men of Muskegon. His elegant residence is located about midway on the south shore of Muskegon Lake, near the brow of a bluff, and commands one of the finest views about the lake. He was married in 1868 to Miss Caroline D. Dayton of Flint, Michigan, whose cordiality as a hostess is widely known and who presides with dignity and grace over his elegant home. Their many friends are royally entertained and their home is a favorite resort, particularly with young people who love and admire the kindly mistress of the mansion. Mr. and Mrs. McGraft have two children: Edith Farwell, who is a graduate of the high school and Business College of Muskegon, attending school at Oberlin College, Ohio, (supplemented from 1893 to 1896 by European travel), and Ray Newcomb, who is now attending the Muskegon public schools. The family are attendants of the Congregational church, of which Mrs. McGraft and daughter are members. Mr. McGraft's career has been one of usefulness and honor, and when one realizes that his present vast accumulations are the result of hard and persistent endeavor, without aid of any sort, he is all the more to be admired and respected. He is universally esteemed and a public spirited and substantial citizen.

Frank Alberts, of Muskegon, Michigan, is a gentleman essentially American in his life and character and has improved the opportunities that the Republic has always held forth to men of courage, honesty of purpose, energy and integrity, and the result has been success beyond the average.

He was born December 26, 1846, at Sheridan, Ohio, a son of David and Mary Alberts, who came to this state in 1865 at the close of the civil war and settled at Ravenna, Mich. Frank received a common school education and in 1871 embarked in merchandising at Muskegon, Mich., in the wholesale and retail grocery business and for twelve years conducted it successfully. In the spring of 1883 he sold out his grocery business and embarked in the manufacture of lumber and shingles under the firm name of Doherty, Alberts & Co., and located a mill at Laketon, Mich., on the north bank of Muskegon Lake, beginning operations in the winter of 1883 and 1884. Their plant had a capacity of 30,000 feet of lumber and 500,000 shingles per day of ten hours, and they did a large business until the mill caught fire and burned to the ground in the fall of 1884. Their loss amounted to $50,000, and necessitated the dissolution of the partnership. A new company was soon formed known as F. Albert & Co., and in the winter of 1884-5 a new mill was erected on the site of the old one, with capacity for 30,000 feet of lumber and 250,000 shingles per day of ten hours' run, their chief markets being Chicago, Milwaukee and other points which they could reach by vessel, while for the last four years they have been doing a large car trade in southern Michigan, Indiana, Ohio, New York and other states. They obtain their logs on Muskegon river and its tributaries and cut a large amount of white pine, hemlock, and white cedar. They own an extensive timber tract in Roscommon county, Michigan, and in all probability since they commenced business have cut 400,000,000 shingles and a large amount of lumber. Their yards are so situated that they have the advantages presented by all the railroads running into Muskegon. Their stock of standing timber is now nearly exhausted.

For thirty years Mr. Alberts has resided in Muskegon and has at all times been interested in her welfare. He is a stock holder in the Hackley National bank, and owns a half interest in the Caine-Wheat Steamer Co., is proprietor of the F. Alberts Hardwood Co., has served his city two terms on the council, also two terms on the Board of Supervisors and was under sheriff of the county for two years. He is married and has a family of four children. He is a member of Muskegon Commandery No. 22 K. T., as well as of the Chapter R. A. M. and Blue Lodge F. & A. M. of that city.

George W. Moore.—George W. Moore, now of Port Huron, Michigan, was a son of Stephen Moore, elsewhere mentioned in this work, and commenced his labors in the saw mill world at an early age, working as a laborer in a mill at Muskegon, owned at the time by A. V. Mann & Co., also mentioned herein. Here Mr. Moore worked for two years, and then began contracting for the same firm in connection with L. J. Cody under the firm name of Cody & Moore. The first venture of the firm was in a contract with his former employer to cut and put into the river six million feet of logs. The partnership continued for six years, the operations of the firm being upon the Muskegon and its tributaries, the operations of the six years aggregating one hundred million feet. Upon the dissolution of the partnership, Frederick T. Moore, a brother of George, purchased the Cody interest, and the firm became George W. & F. T. Moore, which continued for about four years, during which time they put in about the same quantity of logs as had been handled by the former firm. During the last two years of the Cody & Moore partnership the firm constructed seven and a half miles of logging railroad, consisting of a main stem running from Muskrat lake to Clam river, a tributary of the Muskegon. The road was built with numerous spurs leading to various parts of the forest, removing the tracks from one location to another as the timber was cut upon each branch. The road cost from six to seven thousand dollars per mile, but enabled the lumbering of timber which was too remote from the banking ground for profitable hauling by team; the company equipped the road with two locomotives of the pattern which had by this time been found to be the most adaptable to the work in hand, the ordinary type of passenger and freight locomotives not being found to fully answer the purpose upon roads which were constructed rather with a view to the temporary character of the work, than for the permanent purposes of a standard traffic road. The firm finally disposed of their entire outfit to Hovey & McCracken of Muskegon, and Mr. Moore and his brother removed to and took up their residence at Port Huron, where in 1890 they incorporated the St. Clair County Savings Bank of Port Huron. In this they were joined by their father, Stephen Moore, and this institution conservatively handled by men of excellent business judgment is ranked among the most successful and reliable business institutions of that section. (See St. Clair river).

W. G. Watson & Co. of Muskegon.—The members composing the above well known firm are W. G. Watson and O. M. Field, practical and experienced lumbermen, doing a wholesale business in lumber, lath and shingles and also extensively engaged in the manufacture of packing boxes, keeping a full line of dressed and matched bevel siding, beaded ceiling, drop siding, fencing, etc., in fact everything pertaining to their line of work, doing a business of large magnitude. Their enterprise was started in 1879 and is a branch of an extensive business of the same kind carried on at Burlington, Vermont, by the firms of W. & D. G. Crane and Pope & Weston, Messrs. Crane and Pope being also interested in this branch establishment. The mill at Muskegon is an extensive affair, the main building being 200x70 feet, with large engine and boiler house, dry house, etc., and is thoroughly equipped in all departments with the latest and most approved saw mill machinery to be procured. They have five planers, two resawing machines, a full set of box machinery and a large power matcher. The engine of 140 horse-power, is in a separate building and is driven by two boilers of 60-inch shell, 16 feet length, of 50 flues each. They are well prepared for fire, having their own system of pumps in addition to the city supply. The magnitude of their business has been very gratifying to the firm and extends nearly to the Rocky mountains and over a large portion of the south. They have also shipped large consignments to Australia. They handle annually from 25,000,000 to 30,000,000 feet of lumber and their shipments average nearly 150 carloads per month. They employ about one hundred and twenty-five hands and have yards capable of holding from 10,000,000 to 15,000,000 feet. They are extensive owners of timber land, and have obtained the requisite supply for the mill from their own tracts.

Mr. Watson was born in Burlington, Vt., July 1, 1843, and there received his early education. When a small boy he began making his own way in the world and after working for some time in a woolen mill, began learning the planing mill business at which he worked until his enlistment in the First Vermont cavalry under command of Generals Kilpatrick, Custer and Sheridan of the Army of the Potomac, and was three years in the service. He was in the battles of the Wilderness, Cold Harbor, Richmond and all the battles in which the First Vermont engaged up to June 11, 1844, when at Travillian station he was taken prisoner and experienced the horrors of Libby, Andersonville, Savannah, and Mellen prisons, and again at Andersonville, and after ten long months was exchanged from this prison. For two years after the war he was engaged in merchandising, then became a bookkeeper for a lumber firm and still later began the manufacture of boxes in Burlington, Vermont, which business he followed alone until 1879, when the present partnership was formed. Since that time his home has been in Muskegon, with the welfare of which place he has identified himself. He is a director in the Union National Bank, is a member of the Chamber of Commerce, belongs to the Muskegon Club, is a Mason and a member of the G. A. R. A staunch Republican in politics, he has been a member of the City Council, a member of the Board of Public Works and is in other ways identified with the welfare of the city. He is married, and has two children.

O. M. Field, the junior member of the firm, is a native of Ferrisburg, Vermont, born April 14, 1844, and his early days were spent in his native State, although he was educated at Poughkeepsie, New York. During a portion of his youth he followed the sea and also followed other occupations. In 1864 he located in Fitchburg, Massachusetts, and was one of the firm of A. A. Beckwith & Co., and for a number of years was connected with the Fitchburg Railroad Co., until 1873, in which year he came to Muskegon, Michigan, and connected himself with the lumbering interests of the place, as a member of the firm of O. M. & W. Field, manufacturers of shingles and this business was carried on successfully at Lake Side for six years, their annual output being from sixteen to twenty million shingles, also handling from three to five million feet of lumber. When the firm of W. G. Watson & Co. was formed, O. M. Field became a member, and as above stated their business has been large and lucrative and what is more, is continually increasing. Mr. Field is a man of broad views, is a practical lumberman and in his connection with the firm, his thorough knowledge has fitted him for outside work and he has seen to the purchasing of timber land and has managed the logging camps. Both men are able financiers and are succeeding as their many worthy business qualities entitle them to.

Hon. Lyman G. Mason.—It is a real pleasure to review the career of a man whose efforts have been crowned with success, and whose life has been an honorable one in every particular as has that of Hon. Lyman G. Mason. He was born in Belchertown, Mass., June 22, 1829, son of Lemuel S. Mason, who was also a native of that place. The father was a farmer and miller and passed his entire life at Belchertown, where he died in 1844, aged 44. His wife, whose maiden name was Margaret Gates, was born at Belchertown in 1808, and there passed away in 1843. During his youth Lyman G. Mason attended the district school until eleven years old, and then attended an academy for two years. When thirteen years old he entered an academy at Southbridge, Mass., remained there one year, and then began clerking in a store at Worcester, where he remained until in March, 1850. During that year he took passage on the packet ship, "Sheridan" from New York to California and reached San Francisco on the 8th of July of that year. Two weeks later he was appointed an inspector of customs stationed on the Pacific Mail Steamship Company's store ships in the harbor, but nine months later he resigned and went into the northern mining districts. There, he with others, ran a pony express which they afterwards sold to Wells, Fargo & Co. on the extension of their business to the coast. Mr. Mason became one of the first agents of that company in California, but resigned the position after a year and went to San Francisco where he engaged in the lumber and steamboat trade. He furnished a large number of poles for the first telegraph line in California, and also established the first steamboat line between San Francisco and Alviso and San Jose. Previous to this he had been confidential clerk for George Burnham, lumber dealer and steamboat man on the Sacramento and San Joaquin rivers. He bored the first artesian well in San Francisco and supplied water to distributors throughout the city. During 1854 he was engaged in merchandising with others, but in 1855 he closed up all his interests in California and returned to the east. The same year he went to Muskegon, Michigan, and the next spring, he with C. H. Goodman then of Hartford, Conn., built a saw mill at that place. When it was about completed Mr. Goodman sold his interest to Wilcox, Lyon & Co. of Chicago, and about a year later Mr. Mason became sole proprietor, operating it until 1862. In that year he sold to George R. Roberts & Co., and immediately built another mill adjoining which he conducted until 1864. Then he sold to Bigelow Bros. and the same year, with Charles S. Davis, built a mill which they operated until 1878. In July, 1880, Mr. Davis retired from the firm, and since then Mr. Mason has devoted his time to the management of his real estate in Muskegon and elsewhere. No man in that city has sacrificed more of time and means for the upbuilding and development of Muskegon than he. He was a leading spirit in the construction of the Muskegon & Ferrysburg Railroad, the first railroad to Muskegon, and he was president of the company. In 1872 he succeeded in having organized the Muskegon & Big Rapids Railroad Co. of which he was made president. He also took active steps toward building a branch of the Grand Rapids & Indiana Railroad to Muskegon in 1886 and its success was largely due to his perseverance and determination. It was through his efforts mainly that the Toledo, Saginaw & Muskegon Railroad, now an important part of the Grand Trunk system, was built to Muskegon. He was also instrumental in getting the Goodrich Transportation Co. to establish a daily line of boats between Chicago and Muskegon in 1862, which has been of great commercial advantage to the city. In 1864 he conceived the idea of improving Muskegon harbor that it might admit the largest lake vessels, and this was done at great expense. About this time also, 1864, the Muskegon Booming Co. was organized, and has since handled the logs in the Muskegon river and its tributaries. Mr. Mason was one of its incorporators and directors, and for many years its leading spirit. Prior to 1864 the logs were handled in the Muskegon river through the Lumberman's Association of Muskegon, of which Mr. Mason was long a director and influential member. In politics Mr. Mason is identified with the Democratic party and has several times been the choice of his party for prominent political honors. In 1873 he was appointed by Governor John J. Bagley (Republican) a member of the committee to revise the state constitution. He was mayor of Muskegon in 1886. Mr. Mason has done a great deal toward the erection of a good class of buildings in the city. In 1872 he built the first opera house in Muskegon, and was one of the organizers of Muskegon National Bank in whose management he has been interested ever since. Socially he is a Mason and a Knight of Pythias.

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CHAPTER XV.—MASON COUNTY.

LUDINGTON AND ITS DEVELOPMENT.—PENTWATER.—LINCOLN.—HAMLIN.

BUT brief records are available of the early saw mills of Mason county, owing chiefly to the limited means at the command of the pioneers of the county, combined with a lack of system that should have perpetuated and given to posterity the character and early results of their struggles in a new country. While about all of the aborigines have disappeared, and with them the prominent actors in the events of the earlier days, we may note the following bit of history pertaining to the first white settlers of the county.

Some time in 1845 William Porter built a small mill at Free Soil near Lake Michigan, in nearly the extreme northwest portion of the county. This mill was burned a few years later, and in 1855 was rebuilt by Freeman & Hopkins, and it was operated for nearly twenty years after by them and others, their successors from time to time, until the timber supply of the vicinity was about exhausted, when its machinery was removed and the frame abandoned.

The region about Pere Marquette lake, where the city of Ludington now stands, was visited in June, 1840, by Joseph L. Wheeler, who entered a portion of the lands with frontage on the lake, and in 1847 another fraction was entered by Joseph Bourdon. In this year also Charles Mears, whose name is indissolubly connected with the lumber development of this section of the state, and who was for many years a prominent lumberman at Chicago, entered lands on Beach Creek, two and a half miles north of Pere Marquette (as Ludington was originally known), and by building a dam raised the waters of Lincoln lake; a log house and blacksmith shop were erected, and a saw mill started, which was completed and put in operation in 1851. As the county began slowly to settle up, a grist mill was built at the same place, both mills being operated by the water power. A village sprang up, which was at a later day named Lincoln, but its growth was circumscribed by the employes of the mills and their families. The milling business was continued tamely at this place until about 1890, the manufacturing interests being gradually abandoned and the machinery sold. Lincoln was for several years the county seat of Mason county. the second floor of the frame store erected in connection with the manufacturing industry being used from 1866 to about 1870 as the county court house. Within a few years past (1894) the Epworth League Training Assembly has added a large portion of the village property to the territory occupied by it, its main grounds being located in the beautiful wooded hills lying between Lincoln Lake and Lake Michigan, one and a half miles north of the city of Ludington.

Ludington.—The city of Ludington, in Mason county, was earlier known as Pere Marquette, which name was given to the river and town in commemoration of the death at this point in May, 1675, of the early explorer and missionary, Pere Marquette, who was on his way from a missionary tour among the Indians of Illinois to the small settlement at Mackinaw. In 1864 a post-office was established, D. A. Melendy being appointed postmaster, and the village received the name of Ludington.

The earliest records available speak of white men being temporarily engaged up the Pere Marquette river (the name of which remains unchanged) in the manufacture of breasted shingles, at that day a most important industry, sawed shingles not as yet having been introduced. The riving and breasting of shingles was carried on at many points contiguous to the shores of Lake Michigan by peregrinating parties, who squatted at favorable points where good timber was to be had, and as only the best straight-grained and soft timber was suitable, and settlers were too scarce to raise objections, the shingle weavers were seldom molested, although an occasional raid was made by government officials, who seized the manufactured product in the name of the government, and as a rule pocketed the proceeds for their fees.

The first mill of which we find record in the county (as later organized) was at "Free Soil," some twenty-five miles northeast from the mouth of the river, of which we have already spoken as having been built by William Porter, and rebuilt in 1855 by Freeman & Hopkins. Previous to this time Hopkins, who was from the south, and a negro woman who had been his slave, had, from Porter's leaving the vicinity, became the only inhabitants of this section.

About 1852 Captain Eber B. Ward of Detroit became interested in the timber lands of this part of the State and acquired possession of large bodies of pine lands bordering on the Pere Marquette river, and in 1870 built what has since been known as "Ward's North Mill," on frontage purchased of the Pere Marquette Lumber Company, which in the meantime had taken up and otherwise acquired a considerable body of lands bordering upon the lake at the mouth of the river, the Ward location extending from the bayou south to the mill site of the Danaher & Melendy Company, of which we shall speak later. The Ward mill was equipped with two double circular saws, with a forty-saw gang and two double edgers. In 1872 Mr. Ward erected a second, known as the "South Mill," having two double circulars with a forty-two-saw gang, together with a full complement of machinery for edging and the manufacture of lath, and some years later erected a shingle mill near the site of the north mill, having capacity for sawing 225,000 shingles per day, the mill capacity being 170,000 feet daily. In connection with this industry a large warehouse and a brick block for a general store were erected in due time. From 1872 to January 2d, 1875, the property was operated as "E. B. Ward, J. S. Woodruff, Agent," (Mr. Ward died in 1873) and in 1876 it was known under the designation simply of "J. S. Woodruff, Agent," and until May, 1878, as "Catherine L. Ward, J. S. Woodruff, Agent." About the latter date the affairs of the estate being arranged, and Mrs. Ward obtaining full possession, the business took the name of Thomas R. Lyon, Agent, Mr. Woodruff remaining in the practical management to the present time. The shingle mill was burned in 1887, and the south mill in 1895; the north mill will probably have a log stock which will last it until the year 1900, independent of hemlock and hardwoods, of which it has extensive resources.

About this time (1872) an estimate was made by Delos L. Filer (for extended history of whom see chapter on Manistee) of the timber resources of the lands naturally tributary to the Pere Marquette river, who placed them at 3,000,000,000 feet; the approximate closeness of this estimate will be seen in our resume of reported production further on, which places the production to the end of 1896 at a total of 3,125,258,211 feet, which will be but slightly increased by future operations, the timber being practically exhausted.

In 1849 a saw mill was erected near the mouth of the river by Baird & Bean, which two or three years later was operated by Charles Mears, and in 1859 came into the possession of James Ludington and John Mason Loomis, who operated it together until the breaking out of the war, when Mr. Loomis went into the army, where he served with distinction, and the business was continued by Mr. Ludington, and July 24th, 1869, was incorporated under the laws of the State as the Pere Marquette Lumber Company, by which name it has since been known. Since the death of Mr. Ludington, who was its president, Col. Loomis has succeeded to that office, its present officers being Col. John Mason Loomis, president, John McLaren (president of the Hide and Leather Bank, Chicago), vice-president, F. J. Dowland, secretary, treasurer and general manager. The original mulay saw mill of this company was burned in March, 1874, and rebuilt so as to again resume operations by July of the same year, operating one large circular, with a full complement of modern adjuncts in edgers, cut-offs, etc., to a yearly production of 12,000,000 feet of lumber, its total production for the thirty-seven years since 1859 being not far from 400,000,000 feet.

In 1872 a double circular with edgers, lath mill, etc., was erected on the south side of the lake by Hustis & Co., which subsequently passed into the hands of Cartier & Filer. In 1872 also the George W. Roby Lumber Co. was established and built a mill with one single circular, one double circular and a gang, which since 1883 has been known as the Pardee, Cook & Co. mill, its capacity being 18,000,000 feet yearly. Sweet & Bean also in 1872 erected a double circular mill of about 18,000,000 feet capacity, which later became known as the Sweet & Taylor mill. In 1877 E. A. Foster built a shingle mill with capacity for manufacturing 36,000,000 shingles per year. In 1880 Danaher & Cartier rebuilt the mill of M. J. Danaher which had burned a short time before, giving it a capacity for cutting 22,000,000 feet per year, and about the same time Horace Butters & Co. built a shingle mill which was afterwards known as the Smith & Foley mill, its yearly manufacture being about 20,000,000 shingles. A record of the mills of 1891 (the high water mark of production) and their cut of that year is as follows: Butters & Peters Salt & Lumber Co. (run only part of season), 18,886,224 feet; Cartier Lumber Co., 16,225,582 feet of lumber and 20,017,500 shingles; Danaher & Melendy Co., 22,000,000; Thomas R. Lyon, Agent (Ward mill), 81,159,700 feet; Ludington Shingle Co., 31,304,750 shingles; Pere Marquette Lumber Co., 12,000,000 feet; Pardee, Cook & Co. (not operated); O. M. Taylor, 12,500,000 feet; a total for 1892 of 151,762,046 feet of lumber and 20,017,500 shingles. In scanning the records of previous years, the annual lumber production of Ludington was as follows, no data being available for the years preceding 1873:

	Lumber.	Shingles.
1873....	83,670,000	8,000,000
1874....	92,225,000	15,000,0 0
1875....	94,800,000	16,115,000
1876....	104,724,000	18,000 000
1877....	105,328,873	20,000,000
1878....	120,896,288	25,000,000
1879....	111,860,000	52 715,000
1880....	118,377,297	56,707,000
1881....	123,168,945	92,109,000
1882....	136,248,851	84,091,250
1883....	128,832,122	41,307.750
1884....	96,848,490	45,918,500
1885....	85 632,040	55,567,000
1886....	115,200,000	118,161,750
1887....	137,250 390	79,657,500
1888....	130,681,861	97,630,000
1889....	136,406,109	101,484,500
1890....	150,605,714	114,422.750
1891....	146,909,748	90,991.250
1892....	151,862,046	20,017,500
1893....	92,345,685	37,668,750
1894....	93 765,581	38,848,000
1895....	68,212,745	22,859,500
1896....	55,306,084	11,601,000
	2,683,157,829	1,263,893,000

The recorded manufacture of the twenty-three years from 1873 to 1896 gives a gross total of 2,683,157,829 feet of lumber and 1,263,893,000 shingles (reduced to logs at ratio 8,000 to 1,000 feet of logs), and estimating the production from the beginning in 1849 to 1873 at 284,114,382 feet (10 per cent), and we arrive at a total production of no less than 3,125,258,211 feet of timber as the product of the Ludington saw millls. The manufacture of pine timber at this point is practically at an end, and the mills will soon go out of commission, that of the Pere Marquette Lumber Co. closing with the cut of 1897. Of the mills which remain for a short period, the cut of the future will be almost wholly (except for an estimated 75,000,000 feet of pine) confined to hemlock and hardwoods brought by rail, rather than by floating down the river. The figures given by no means represent the entire commerce of the port of Ludington, as with the completion of the Flint & Pere Marquette Railroad to this point in 1874 many saw mills which had been erected on its line, together with large quantities of bark, cedar posts and te'egraph poles were brought to this point from along the line of road for shipment, but of these no records are available.

Fourteen miles south of Ludington, in Oceana county, is the town of

Pentwater.—When in 1850 William M. Ferry, who later became a prominent operator at Spring Lake and Grand Haven, built a water saw mill at Pentwater, and two or three years later Rector & Cobb built a steam mill at the same place, these, with the mill of Charles Mears, mentioned below, were small affairs, suited to the restricted demand of the early day, and with the few shingle weavers who from time to time sought a precarious living from the government timber, constituted the entire lumber operations of the earlier years. In the spring of 1853 the young settlement got a heavy set back, in the appearance of some government agents, who seized all the logs, lumber, shingles and shingle bolts upon which they could lay their hands, claiming them as having been cut upon public lands without warrant from the government. The claim was no doubt justly made, although the authority of the agents was doubtful, but it left a poor lot of settlers in an impoverished condition. After a few months a pretended sale passed the possession of the property to a sham bidder, who shipped a lot of the stuff to Chicago, but before the vessels could return for the balance, a fire, probably spontaneous combustion (?) destroyed the balance of the manufactured material.

The mill cut at Pentwater was an unknown quantity until 1869, when a volume of 85,000,000 feet of lumber was recorded, the cut of 1870 falling to 67,000,000 feet, dropping the following year to 11,500,000 feet, which in 1872 increased to 40,000,000 feet. With no record for 1874 the cut of 1875 was but 8,100,000 feet, and from this time the product varied from about 12,000,000 to 15,000,000 feet annually, until in 1895 when the reported cut was 4,153,000 feet of lumber, and 12,779,000 shingles, Sands & Maxwell being the principal operators, C. H. Chapman having a shingle mill which reported 1,000,000 shingles in 1895 and with E. J. Kobee (no cut recorded) sharing the honors.

While authentic data is lacking enabling anything more than a "guess," at the gross product at this point it is probably not wide of the mark to state the output of Pentwater from 1850 to this time at 600,000,000 feet; and as hemlock and hardwood have been the principal products of the past few years, the locality may be classed with the exhausted districts so far as pine is concerned.

In The Grand Rapids Democrat of March 19th, 1896, we find the following pioneer history of Pentwater, coupled with complimentary allusions to the late Charles Mears of Chicago, who died in that city in 1895, and whose biographical sketch in the history of the Chicago lumber trade, fully bears out the encomiums of the attached article:

"The pretty little port of Pentwater was discovered by Charles Mears, the Christopher Columbus of the west shore, about A. D. 1838. He had already discovered, subdued, colonized and civilized Whitehall, when he sailed north and landed at the present site of Pentwater. He named the new-found land Middlesex and at once took possession of the country in the name of commerce by setting up a sawmill, store, boarding house and logging camps. Mr. Mears was an enterprising Massachusetts Yankee who built and sailed his own vessels, constructed and operated saw mills, opened harbors and did all his own buying and selling. He continued his discoveries and settlements as far north as Hamlin, near Manistee, until he had improved six harbors, built fifteen saw mills and established several villages. When land travelers had to follow the beach from Grand Haven to Manistee, the mill boarding houses and logging camps of Charles Mears were the only decent stopping places to be found. They were always comfortable and commodious, as neat as a New England farm house, with clean, inviting beds and an abundant table with well-cooked, wholesome food. Vegetable gardens and fruit orchards were regular adjuncts. He provided evening schools for the young Swedes brought over from Chicago as workmen, and acted as head teacher. Even the modern manual-training idea was, in that early day introduced by providing shingle jacks on which every pupil each evening shaved his bunch of shingles, thus learning a trade, and helping load the vessels in the spring.

In the sixties a genuine boom struck Pentwater. Additional saw mills were erected by S. A. Browne & Co., Sands & Maxwell, Richmond & Bean, and others. Churches and saloons became numerous and business moved with a jingle. About that period several young lawyers located in the growing village. Among them were R. M. Montgomery, of the Supreme Court and his cousin, R. A. Montgomery, now leader of the Lansing bar, who enjoyed life while rattling over backwoods logging roads on buckboards in pursuit of $10 justice court jobs, where they often met Gen. L. G. Rutherford of Grand Rapids, who was then located at Hart, four miles distant. Like all lake towns from St. Joe to Mackinaw, Pentwater has the 'best natural harbor on the shore.' First-class steamers connected with Chicago and Milwaukee boats, and early in the seventies Pentwater became the northern terminus of the Chicago & West Michigan railroad line. Those were the palmy days of Pentwater's prosperity. Now the pine period is past, and at present the most prolific products of her prosperous people are plums, peaches, potatoes and ponderous Republican pluralities. About the village is a large area extending north to Ludington, of the finest fruit, farming and potato land to be found in Michigan. In this territory over 50,000 peach trees were set out last spring and more will follow this year. Numerous small hardwood saw mills have taken the place of the few big pine mills. In old times the village was decidedly lively like most new lumber towns. Everything from swine to stumps was allowed on the sand and sawdust streets excepting boiled shirts. To-day it has one of the most quiet and cultivated communities on the west shore.

The enterprising firm of Sands & Maxwell is the backbone of Pentwater's business body. They

Edward D Wheeler

operate an immense store, two furniture factories, the last remaining saw mill, and control the output of a dozen interior hardwood mills. They sell goods for labor, boards, bark, bolts, shingles, ties, potatoes, fruit and all other products of the farm or forest, as well as cash. It is claimed that they make more money than any other mercantile concern of Michigan. Everybody has some of it.

Charles Mears, when he had little cash but large credit, was the first to introduce the store-pay system in Pentwater, and Sands & Maxwell are the last to adhere to it. The firm's factories show a line of very handsome furniture in their Grand Rapids sales rooms, produced mainly from oak, maple, ash, elm and store orders.

This locality is swept by the cool and invigorating breezes of Lake Michigan, has a charming gem of an inside lake, and an abundance of refreshing green grass and trees as well as plenty of clean sand beach. The trout streams in the immediate vicinity are unsurpassed in Michigan and the lake fishing is fine. Pentwater has a promising future. It will surely be a great farming, fruit and gardening center within a very few years. Its splendid tributary forests of hardwood and excellent shipping facilities must attract more manufacturing. Altogether it gives promise of a marked increase in population and prosperity in the near future."

Among the prominent lumber manufacturing concerns of Ludington was

The Pere Marquette Lumber Co. of which Frederick J. Dowland is secretary and treasurer. This old and well-known lumbering company was organized July 24, 1869, the members composing it being D. L. Filer, president; John Mason Loomis, treasurer; James Ludington, L. H. Foster, secretary, and Edward A. Foster, and the capital stock was $500,000. In 1859 James Ludington became the owner of a large tract of pine land on the Pere Marquette river, and a saw mill on Pere Marquette lake, which he operated alone up to 1869 when the Pere Marquette Lumber Co. was formed, and his pine land amounting to about 25,000 acres was purchased by the members. Push and enterprise marked their proceedings from the outset; many and great improvements were made, and the present officers are John Mason Loomis, president; John McLaren, vice-president; Frederick J. Dowland, secretary and treasurer. The other members are E. G. Filer; Mary M. Filer; C. H. Ludington of New York City; L. E. Ludington of New York state; Emily L. Tull of Oakland, Cal.; Laura A. Hustis of Milwaukee, and Jacob Staffon Ludington. This company does both a lake and railroad trade, and their mill is the oldest in this part of the state, having been established in 1848 and operated by different men until 1859 when it became the property of James Ludington. In 1883 this company engaged in the manufacture of salt, and now make about 90,000 barrels a year. Frederick J. Dowland, secretary, treasurer and general manager of the company, is one of the substantial business men of Ludington. He has taken an important part in the improvement of this region and has interested himself in numerous enterprises tending to this end. He was born in Newfoundland, October 8, 1837, a son of Samuel Dowland who came to Washington county, Wis., in 1848, where he spent the rest of his days. His widow, who is still living, makes her home with her son, Thomas J., and (1897) has reached the advanced age of eighty-two years. She became the mother of three sons and four daughters. Frederick J. attended school in Newfoundland and Wisconsin, gained a good education and at an early age became a teacher. With the money thus earned he entered college, but left it to become a soldier in August, 1862, enlisting as a private in Company G, 26th Wisconsin Volunteers, but shortly after was confined to the hospital with sickness, and when again able to go on duty was transferred to the Veteran Reserve Corps and was detailed for clerical duty at Washington. In 1865 he received his discharge and returned to Milwaukee, and during the winters of 1865 and 1866 he taught the old home school in Washington county. At that time James Ludington of Milwaukee, was operating at Pere Marquette in the lumber business, and Mr. Dowland became his assistant bookkeeper (April, 1866), and was appointed bookkeeper in 1868.

Upon the death of Luther H. Foster, the old secretary of the company, Mr. Dowland was elected to fill the vacancy; and in addition to this, upon the death of Delos L. Filer, its then president, Mr. Dowland was appointed general manager and treasurer, and it is but just to say that the subsequent success of the enterprise is due, in a great measure, to his foresight and skillful management. He has always interested himself in county and other public affairs and from January, 1877, to January, 1881 he held the office of County Treasurer and was the first County Superintendent of Schools (in 1867), which office he held one year. In 1881 he was treasurer of the County Agricultural Society, was postmaster of Ludington as far back as 1868, was elected mayor of the place in 1895, serving two years and succeeded the late Delos Filer as president of the Pere Marquette Boom Co. upon the latter's death in 1879. The country around about was a wilderness when Mr. Dowland reached Ludington, and at the time (1867) he was elected County Superintendent of Schools there were only eleven school districts in Mason county. October 22, 1867, he wedded Miss E. C. Mitchell of Port Huron, Mich., and they are the parents of the following children: Adah S. who is in the Conservatory of Music at Oberlin, Ohio; William F. is cashier of the Citizens' Exchange Bank at Hart, Mich.; Clarence S. is attending the Ferris Industrial College at Grand Rapids, Mich., and Edith C., who is also in the Musical Conservatory at Oberlin, Ohio. Mrs. Dowland's father was Judge W. T. Mitchell, a prominent attorney of Port Huron. Mr. Dowland has always supported the men and measures of the Republican party and socially belongs to the Knights of Honor. He is a Grand Army man and was at one time Commander of his post at Ludington. He is one of the trustees of the Congregational church, of which he and Mrs. Dowland are members.

The mills of the Pere Marquette Lumber Company were originally of the small calibre incident to the early day, with a manufacture of but three or four million feet yearly. By 1880 they had been improved to a capacity of 10,000,000 feet, and with later improvements added from time to time have averaged from 12,000,000 to 15,000,000 feet per year, and since 1883 have utilized the slabs and debris of the mill in the manufacture of salt to the extent of 90,000 barrels per year. The operations of the company came to a practical ending in 1897 its timber supply being exhausted.

John Mason Loomis, of the Pere Marquette Lumber Company, of Ludington, has been a conspicuous member of the fraternity of lumbermen for a full half century, and few men in Chicago or the northwest have had a more varied, picturesque and instructive history, personally or in his connection with the lumber trade since 1846.

Col. Loomis was a native of Connecticut, his English ancestor, Joseph Loomis of Braintree, Essex, England, being among the early pioneers of the country, having reached the port of Boston, July 17, 1638, and two years later becoming the purchaser of a large tract of land at or near Windsor, Connecticut, at the confluence of the Farmington with the Connecticut river, a property which has remained in the Loomis family to the present day. The father of John Mason Loomis was Col. James Loomis of Windsor, who was in the early part of this century a prominent merchant, mill owner and farmer with a decided taste for military tactics, being for several years colonel of the First regiment of Connecticut State Militia, an organization which under the State laws demanded military drill at least once in each year from every able-bodied citizen between the age of 18 and 45. "Training Day" (the first Monday in May) was one of the most important in the calendar of the Nutmeg State, vying in popularity with Independence Day. It was but natural that the son of the central military figure of the region should become imbued with and develop a remarkable military genius. The mother of John Mason Loomis was Abigail Sherwood Chaffe, of Greenfield Hill, Fairfield county, Conn., from an old colonial family of high standing, noted for the large number of successful medical practitioners who had made the name honored throughout the State. The subject of this sketch was educated in the common schools and Academy of Windsor, which in his youth ranked with the best of the educational institutions for which the State of Connecticut has from the earliest days of the nation been noted, graduating from the Connecticut Literary Institute at Suffield, Conn. On leaving the Institute he received a practical business training in his father's store, but his military predilections were stronger than his business instincts, and as the naval branch of the service presented many charms to the young men of the day, he applied for a position as midshipman in the navy and was enrolled as a supernumerary, but becoming tired of waiting for orders, he shipped as a common sailor in the then prominent Chinese trade. Meantime, however, at the age of eighteen, he was elected captain of a company of State militia, and thus still further stimulated his military predilections. Returning from sea, he in 1846 accompanied a brother on a trip to the west, but not finding a desirable business opening, his brother returned east, leaving John at Chicago, whence, finding no employ, he went to Milwaukee and was fortunate in being permitted to work without compensation in the lumber office of M. W. Clark & Co., supporting himself as best he could from the scanty savings of odd jobs of work. During the winter the firm was engaged in building a vessel for their lumber trade, a schooner carrying about 80,000 feet, and the advice and opinion of the young sailor was gladly availed of. The building of the schooner crippled the finances of the firm which had by this time formed so favorable an opinion of the young man, that they induced him to buy their lumber yard, taking his notes for the purchase, which amounted to about $4,000. In the trade they allowed Mr. Loomis $62.50 for his year's work with them. The yard was located on Walker's Point, and a year later Mr. Clark joined him in a partnership which continued until January, 1849, and on August 20 of that year Mr. Loomis was married to Miss Mary, daughter of Hon. Milo Hunt, of Chenango county, New York. About this time he formed a partnership with James Ludington for the purpose of carrying on a commission lumber trade, and deeming it advisable to remove the business to Chicago, the lumber stock in his Milwaukee yard was loaded on a couple of schooners and on arrival at Chicago was sold to Chicago's only colored lumberman, one Platt (who was a successful operator for several years, accumulating quite a fortune, but whose name we do not find in any of the directories, possibly from the prevailing racial prejudices of the day). The commission business of that period was conducted in connection with storage lumber yards, the lumber not being sold by cargo as at present. The firm now located in a storage yard commission business on the corner of Madison and Market streets, subsequently removing to Twelfth street and the river, where Loomis & Ludington were in successful and prosperous business until the breaking out of the war of the rebellion, Mr. Loomis having exclusive charge of the Chicago end, Mr. Ludington residing at Milwaukee and attending to the extensive interests of the firm, which at this time practically owned or controlled a large proportion of the villages of Manistee and Ludington, Michigan, with large bodies of pine lands in the adjacent country. On the breaking out of the war the military spirit and genius which had previously been exhibited by "Lieutenant" John Mason Loomis of the famous Chicago "Light Guard" received recognition from Governor (Fighting Dick) Yates in the offer of the colonelcy of the Twenty-sixth regiment of Illinois Infantry Volunteers, which Mr. Loomis had been prominent in organizing. No better selection could have been made, and the record of fifty-seven battles and skirmishes, and a march of 6,931 miles during the ensuing three years, well merited the eulogium of Gov. Yates when at the time of the re-enlistment of the Twenty-sixth regiment he said in speaking of its efficient service:

"When I selected Col. Loomis as the commanding officer of the regiment, it was not because he had raised it. I selected him because of his ability to command, for his military talent, and for his devotion to his country, and I was not mistaken in the man. He has proved equal to the emergency. The names of New Madrid, of Island No. 10, of Iuka, Corinth, Farmington, Vicksburg, Jackson, Tunnel Hill and Chattanooga, which are inscribed upon its battle-scarred flags, and upon those fields which its valor won, afford ample evidence of the valuable service which was performed there. We have watched you through long and tedious marches, through sufferings and trials. In that memorable battle of Tunnel Hill we saw you march undismayed at the head of the army and receive for your valor the praise of your commanding generals, Grant and Sherman."

Col. Loomis was in command of the brigade to which his regiment was attached, and while gaining the reputation of the "fighting colonel" won the higher honor which was embraced in the affection and confidence of the brave soldiers of the command, who found no fatigue too great, no danger too menacing when their loved colonel was in the lead.

On leaving the army in 1864 Col. Loomis returned to Chicago a poor man, with ready means insufficient even to purchase a civilian suit. Fire had devastated his residence and destroyed all of his household goods, his business was broken up and his resources destroyed. His large interests in Michigan had been put beyond his reach, and he was almost literally penniless. Never possessing a taste for business pursuits, he overcame a repugnance increased by his military service of over three years, and with the same undaunted courage which had marked his career in the army he with the assistance of a few friends again essayed to build up a business in the commission lumber trade, and although the struggle was long and severe, he, with the confidence of his patrons, soon succeeded in establishing a paying business, and was soon again an investor in the valuable pine lands of Michigan, increasing his holdings as rapidly as his means and credit would permit. Organizing the Pere Marquette Lumber Co. of Ludington, Michigan, about the year 1868, he has since controlled its vast operations and has recouped the losses of the earlier period and is now in the enjoyment of a handsome competence wrung out of adversity by persistent effort and wise economy. In the year 1870 he joined with him in the commission business Mr. John McLaren (his bookkeeper since 1865) and the firm of John Mason Loomis & Co. was for many years the leading commission lumber house of South Water street, Chicago, none standing higher in the business circles of the city. On the retirement of Col. Loomis in 1885, the firm became McLaren & Morris, and so continued until by the retirement of Mr. McLaren (later president of the Hide and Leather Bank, now vice-president of the Union National Bank), T. G. Morris & Co. became their successors. In social life and in his public relations Col. Loomis has ever occupied a high and enviable position. As a member of the Chicago Relief and Aid Society, organized some years previous to the fire, and to whom the contributions of a sympathizing nation for the relief of the unfortunate sufferers by the great fire of 1871 had been turned over, Col. Loomis' services were found to be invaluable, his administrative ability proving to be of the highest order. He served one term as auditor of the board with marked efficiency, and was a member of the auditing committee from 1874 to 1881. As an active member of the Citizens' Association since its organization, his counsels were always conservatively progressive in advocacy of all which could increase the welfare of the city. As chairman of its Military Committee he has done more perhaps than any one man to promote the efficiency of the Illinois State Guard, his military training and experience, combined with his practical good sense and judgment regarding the true relations of this important arm of the nation's safety, have gone far toward its efficient establishment and maintenance. Through his individual efforts not less than $50,000 has been raised by popular subscription in its behalf to be expended in the purchase of arms, clothing and equipments, and its present efficient condition is largely due to his wise efforts in its behalf. But his philanthropic and patriotic endeavors have not been confined to the State of Illinois or the city of Chicago. In connection with other members of the Loomis family he was interested in 1878 in the incorporation of the Loomis Institute in his native town of Windsor, Conn., the aim of which is to give free education to all persons between the ages of twelve and twenty years (preference being given to those more nearly or remotely connected with the Loomis family by ties of consanguinity), who possess the elementaries of an English education. The institution is located on the estate purchased by Joseph Loomis in 1640, fifty acres of which have been generously donated by its present owners for that purpose, it still remaining in the Loomis family. An endowment fund has been established which is intended to reach from $1,500,000 to $2,000,000 for its sustenance and maintenance. Although in his 70th year, Col. Loomis is still active and vigorous, and is alive to the wants and interests of the city of Chicago and the great west. He has lost none of his military fervor, and takes great interest in the Loyal Legion, of which he was a charter member, and of which he was elected Vice-Commander in 1880, and in 1884 was elected Commander to succeed the gallant Phil Sheridan, in the Illinois Commandery. He is a member of George H. Thomas Post of the G. A. R. and holds the honorary position of colonel for life of the military survivors of the Twenty-sixth regiment, Illinois Infantry Volunteers. He is a member of Grace Episcopal Church and an honored member of various social organizations, including the Chicago, Calumet, Union, Washington Park and Tolliston clubs.

In politics he is a staunch Republican, yet liberal in his views, more desirous of seeing good and pure men in official positions than of advancing partisan ends. As a member of the fraternity of lumbermen he has ever been held in the highest esteem from his first advent in the trade, and no man stands higher in the community in all which contributes to the good name of merchant, soldier or citizen. His has been a life of business vicissitudes and business success, but above all a life worthy of study and imitation by all, and especially those who would find the royal road to success and happiness. His long connection with the Pere Marquette Lumber Co. as its practical head has marked him as no less conspicuous as a manufacturer than as a dealer in the immense products of the forests of Michigan and Wisconsin, the individual output of the Pere Marquette Lumber Co. alone aggregating fully 500,000,000 feet.

John McLaren has been widely known for many years as one of the most active, energetic and prominent of the lumber dealers of Chicago, and as a prominent member of the Pere Marquette Lumber Co. of Ludington, Mich. His long experience, his abilities and strong character, his complete mastery of the details of his business, have made him an acknowledged authority on all questions touching the varied and gigantic lumber interests not only of this city but of the region of the great lakes and of the northwest. It is no light task to become an expert in a trade of such magnitude as the lumber interests of Chicago. It requires persistent effort from the basis of strong natural abilities. In addition to this Mr. McLaren possesses social qualities of a high order, and the rare combination of business and social gifts has made him both popular and prominent.

But he has not confined his usefulness to the domain of business; he has done a work of substantial and enduring importance for the educational interests of the city. In 1887 he became a member of the City School Board under Mayor Roche, was continued by the latter's successor, Mr. Cregier, and was elected president of that important body and in his continuous service in that capacity was energetically identified with all the great measures and movements to promote the growth and enlarge the scope of the city's educational interests. At the expiration of his term of service he was again appointed in 1894 by Mayor Hopkins to succeed D. W. Preston, but on account of the pressure of other duties he was unable to accept the honor. The present remarkable efficiency of the local public school system is in a large measure due to the wise, modern and vigorous policy of Mr. McLaren. So highly was Mr. McLaren esteemed by his associates that the Grammar School on the corner of York and Laflin streets was given the name of "The John McLaren" School. The social qualities of Mr. McLaren are too preponderant to suffer either abridgment or suppression. His irrepressible good nature often bursts through all restraint and cheers all who have the pleasure of his friendship, companionship and confidence. He is thus a charming companion and a trusted friend. His brilliant social qualities have made him prominent in the Union League Club, the Illinois Club, the late La Salle Club and the Masonic order, his membership in each dating back several years. As early as 1866 he became a member of the Masonic fraternity and in 1870 and 1871 was Worshipful Master of Cleveland Lodge No. 211 of Chicago. He advanced steadily, until in September, 1879, in the Supreme Council at Philadelphia he had attained the 33d degree, the highest point that can be reached in that ancient and honorable order. He was elected High Priest of Washington Chapter in 1874, and Eminent Commander of Chicago Commandery, K. T. in 1875 and 1876. He was for many years a most efficient member of the Board of Trustees and is now President of the Masonic Temple, corner of Randolph and Halsted streets, and was secretary of the association for a long period of years. He is also a member of the military order of the Loyal Legion, of Grant Post, G. A. R., and of the "Army of the Tennessee." He is a director in the Milwaukee Avenue State Bank, and at its organization was elected a director for one year. of the Industrial Bank of Chicago, and is a clear and strong Republican in his political affiliations.

Mr. McLaren was born in Edinburgh, Scotland, September 11, 1836, his parents being William and Helen (Hume) McLaren, both of whom were also of sturdy Scotch nativity and ancestry. In 1852 the father, a cabinetmaker by trade, came to America with his family consisting of his wife and five children, of whom are now living John McLaren and Mary, wife of John Oliver, of this city, and a daughter who is also a resident of Chicago, two having died. The family first located in Chicago, but in 1855 removed to Dubuque, Iowa, where a son William (now secretary of the A. R. Beck Lumber Co.) and a daughter who died in infancy were born, and where the parents resided until their respective deaths, the mother in 1859 and the father in 1870. John McLaren received a good common school education in his native land and in 1852 came with his parents to America. Upon seeking employment soon after his arrival, he found that his broad Scotch accentuation was a bar to his securing clerical duties for which he considered himself competent; whereupon he determined to learn the carpenter's trade, and with that object in view secured an apprenticeship with the well-known old-time carpenter and builder, Sanford Johnson. He finished his apprenticeship in 1857 and followed his father's family to Dubuque, Iowa, where he followed his trade until the war broke out. In August, 1861, he enlisted in Company F. of the "Engineer Regiment of the West," so called because it was composed of volunteers from the states of Iowa, Illinois, Michigan and Missouri, though it finally became assigned to the latter state by reason of the quota of the other states named having been filled. Mr. McLaren enlisted as a private, but through meritorious conduct rose steadily through the grades of orderly sergeant, sergeant major, second lieutenant, and first lieutenant and was mustered out as adjutant of the regiment at Savannah, Georgia, in December, 1864, after having honorably participated in the historic and famous "March to the Sea." The corps of which his regiment was a part, was successively commanded by Gens. Grant, Sherman, McPherson, Logan and Howard.

At the close of the war Mr. McLaren came to Chicago, and there he has since resided and become one of our most substantial citizens and representative business men. In 1865 he became bookkeeper for Col. John Mason Loomis, who was then engaged in the commission lumber business, and so rapidly did he acquire the complete mastery of the trade that in 1870 he became a partner under the firm name of

John Mason Loomis & Company. So quick was the development of the business of this firm that their trade was soon the largest in the city aggregating the first year fully 80,000,000 feet of lumber. They continued in active business until 1885, and are still associated in the same business as the Pere Marquette Lumber Co. owning considerable valuable timber land and much unsettled business. In 1885 Mr. McLaren formed a partnership with Thomas G. Morris under the firm name of McLaren & Morris, which association was profitably continued for three years, the sales reaching as high as 120,000,000 feet per annum. He is the vice-president of the Pere Marquette Lumber Company and also of the A. R. Beck Lumber Company of South Chicago. For many years he was a director of the Chicago Lumber Exchange, of which organization he officiated successively as treasurer for several terms, including 1881-2 and 1889-90 and 1878-9 and 1886 as vice-president, and in 1887 as president of the Board. Mr. McLaren has always been foremost to advance the lumber interests of the city and has for many years occupied a prominent position among the highest class of local business men. He was married in May, 1868, to Miss Hattie A., daughter of Capt. Davis Studley of Cook county, Illinois. They have had four children, three now living—J. Loomis, and Jessie and Grace, twins. The family are members of the Third Presbyterian Church.

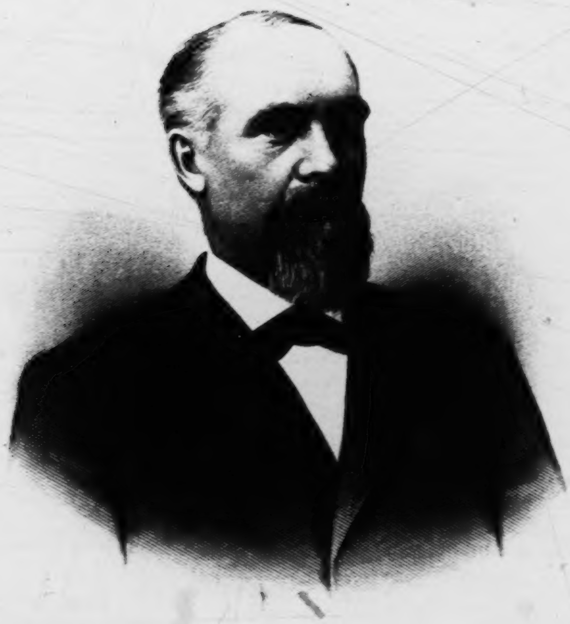
Mr. McLaren has taken a deep interest in the work of the Chicago Relief and Aid Society, organized in the fall of 1871 to disburse the contributed funds of a sympathizing world with the fire-stricken city, and continued in later days in aid of that unfortunate class of whom it is said, "The poor ye have always with you," serving as President of the society during the years 1891 and 1892. Full of sympathy for his suffering fellow man yet keen of judgment in discerning fraud, Mr. McLaren has been a safe adviser in the affairs of the association.

John McLaren is a good type of an intelligent Scotch character; quick to discern the right, and fearless in the maintenance of those principles and measures which commend themselves to his judgment and to his conscience. With him is no truckling to wrong because of its popularity, and no endorsement of evil because of its immediate financial profit. Mr. McLaren has the courage of his convictions, and as those convictions are naturally clear cut and on the right side, it follows that his influence has been for good, whether exerted in business, social, political or masonic circles. It is no flattery to say that John McLaren is held in the highest esteem by all who have come under the influence of his acquaintance or example, and is esteemed a safe adviser upon questions of business or social import. Retiring from the Board of Education in 1893, Mr. McLaren was in the spring of 1894 elected to the presidency of the Hide & Leather Bank, one of the staunchest as well as one of the oldest banking institutions of the city, and in May, 1894, was appointed by Judge Horton of the Superior Court as a trustee to succeed the late Hugh A. White as a trustee of the important trust fund created by the late Allen C. Lewis for the purpose of establishing a free reading room and institute for the education, use and benefit of all who desire the advantages of a Polytechnic school, but are otherwise unable to secure the privilege. The fund thus created now amounts to nearly one million and a half of dollars, and the selection of Mr. McLaren to so important a trust is no small compliment to his character as a wise and able financier, and is an evidence of the general confidence which is felt in him in the community in which he has for so long dwelt. Although of foreign birth, our nation can well afford to welcome with outstretched hands such citizens of foreign lands as exhibit the true traits of American citizenship exemplified in the history of John McLaren.

The Danaher & Melendy Co.—Although the lumbering firms of Michigan are numerous and prominent, yet the one above mentioned ranks with the foremost, as it could hardly fail to do when the fact is taken into consideration that the men composing it are lumbermen of long and varied experience. The company was incorporated in 1876 with a capital stock of $300,000, with P. M. Danaher, president, Davis A. Melendy, secretary and treasurer, J. E. Danaher, superintendent, and James Ludington one of the directors. The original founders of the business were Patrick M. Danaher and David A. Melendy, who purchased a mill site on the Pere Marquette Lake (now in the fourth ward of Ludington) in 1869, which region was then heavily covered with pine forest. The following year they were ready for business, their mill being equipped with double rotary saws with gang edgers, log turners and automatic rollers, the entire outlay amounting to $35,000, besides which they built a boarding-house, warehouse and store building in the village, at a cost of $4,000. Fifty-five men were employed, and the first year they sawed on contract for Capt. E. B. Ward, the cut amounting to 16,000,000 feet. During 1869-70 they purchased tracts of pine land in Mason, Lake and Newaygo counties, and since 1871 have sawed their own logs. The capacity of the mill at first was 75,000 feet in twelve hours, but it was soon increased to 125,000 feet in the same length of time. The year after the stock company was formed, owing to the hard times and the low price of lumber, they failed, and George N. Stray was appointed trustee, and up to October, 1881, managed the business, when the creditors were paid off and the company reorganized with a capital paid up of $238,000. P. M. Danaher was made president; James E. Danaher, vice-president; George M. Stray, secretary, and John Mason Loomis, treasurer. Soon the Danaher family bought all the stock of the company, reorganized the business, and after the death of the president of the company, P. M. Danaher, C. D. Danaher was elected in his stead, J. E. Danaher being secretary and treasurer. The mill has been improved from time to time with latest and best machinery, and since 1870 has cut from 75,000 to 100,000 feet per day, which until very recently they have shipped wholly by lake, but are now doing a large car trade to eastern points. They have always had a fleet of vessels, and now own the W. J. Carter, which has a capacity of 350,000 feet; the steam barge Marion, capacity 800,000 feet, and others. They have always conducted large logging operations in Mason, Lake and Newaygo counties, and the most of their logs are now sent by rail to their mill. They still have four or five years' cut in Newago county, near the Flint & Pere Marquette Railroad. In 1895 they purchased a tract of pine land in Luce county, Upper Peninsula, and bought the plant and village property of the Dollarville Lumber Co., where their average daily cut since that time has amounted to 100,000 feet. They have 100,000,000 feet of standing pine, and log by rail, marketing by rail or water. C. D. Danaher is manager of the plant and lives at Newberry. Patrick M. Danaher was the prime mover of the business from its commencement until his death. He was an expert woodsman, located and purchased their timber land, and was one of the foremost men of Ludington. He was born in Ireland in 1822, and when five years of age was taken to Canada by his parents, and two years later to Pennsylvania, where he grew to manhood. In early manhood he became a railroad contractor, located in Brighton, Wis., and from there removed to Whitehall, Mich., where he engaged in logging for Hughes & O'Brien, doing contract work. From there he came to Ludington in 1863, and up to the time he and Mr. Melendy started their mill he was in the employ of James Ludington, and was engaged in harbor building at this place and Pentwater, and also built part of the Flint & Pere Marquette Railroad. He was a man of great energy and pluck, shrewd, practical and far-seeing, and believing in the value of pine lands, purchased large tracts whenever he could. At his death his estate was valued at about $500,000. He never became discouraged, and when times were hard pushed business all the harder, and time showed the wisdom of his methods. His widow resides at the old home in Ludington. To them were born four sons—C. D., manager of the Dollarville mill; J. E. is at the head of the business at Ludington; M. B. is an attorney at Ludington, and W. H. resides in Chicago. James E. Danaher was born in Plymouth, Wis., Oct. 16, 1851, and acquired his education there and in Ludington. At an early age he entered the mill, soon became foreman, and for nine years was in charge of the Danaher & Melendy Co. mills. In 1881 he became secretary and treasurer, and since that time has had charge of the Ludington plant. He was mayor of the town in 1889, as was his father before him in 1874 and 1875, and like him he has always been a Democrat. He is a fine business man and universally esteemed. He has a wife and one son, Ray.

Frank Filer.—Among all the interests that are carried on in any community, none succeed so well as the ones that are conducted by practical men, an illustration of which statement may be found in the life of the practical, experienced and far-seeing lumberman, Frank Filer of Ludington, Mich. He was born in Manistee, August 21, 1854, to Delos L. Filer and wife (see Manistee), and in the public schools of that place he acquired a practical education, reaching to the High school, and which he afterwards completed by attending the Commercial College of Grand Rapids, Mich., in 1875 and 1876. It was not long thereafter that he became interested in the manufacture of lumber, for he had previously worked around different saw mills, and soon after leaving school he became manager of the Pere Marquette Lumber Co.'s saw mill at Ludington, which he managed with marked ability up to 1878. He then decided to embark in the business for himself, and for this purpose formed a partnership with Chauncey Gibbs, they purchasing the plant now owned by the Butters & Peters Lumber Co., which had originally been built by John Vahue and Charles Hustus in 1873, but prior to becoming the owners of the same they rented it for some time, then with Messrs. Dempsey and Cartier bought the plant and operated it with success up to 1882, when it was sold to Butters & Peters. For some time after this Mr. Filer gave his time and attention to other lines of industry, and helped to form the Ludington Wooden Ware Co., in which he is still interested and one of its directors. Soon after giving up lumbering he established the Ludington Electric Light System, in 1887, which has 190 arc lights and 1,800 incandescent lights. The plant is a fine one, well equipped with six dynamos, and cost $45,000. Mr. Filer is a stockholder and director in the First National Bank of Ludington, is president and was one of the incorporators of the Epworth League Railroad Co., and has interested himself in many other important enterprises. He has a handsome residence and a fine stock farm near the city, and gives considerable attention to the breeding of fine horses and swine. The Republican party has always received his support, and in 1887 and 1888 he served as an alderman of Ludington and has frequently been a member of the school board. He is a member of the Masonic lodge of Ludington and the DeWitt Clinton Consistory of Grand Rapids. In 1882 he married Miss Myrtle Carter of Ludington, and they have one daughter, Golden.

Albert Vogel.—Albert Vogel is one of the leading business men of Ludington, Michigan, having chosen that city as his residence in 1871, since which time he has been an active participant in the development of its business interests. Mr. Vogel was born in Germany, January 1st, 1845, the son of Doctor Albert Vogel, who for many years past has practiced the profession of medicine in Chicago, where Paul, a brother of Albert, is chief clerk of the Circuit Court, and another brother, Charles, is also an officer of the courts. Albert Vogel obtained his education in the schools of his native country, and had reached his majority when he came to the United States, living for a time in Chicago, from whence he went to Pentwater, Michigan, and in 1871 located permanently at Ludington where he speedily took a prominent position as a business man. In 1885 he embarked in the lumber business, purchasing a large tract of pine and hardwood lands in the county, comprising some six or seven thousand acres, and erected a saw mill at Scottville in 1893, meantime engaging in the cutting of his timber which was sawed under contract by Foster Brothers, at Fountain, which was convenient to a portion of his timber tract, which is largely located on the line of the Flint & Pere Marquette railroad. The mill at Scottville is a circular, with capacity for cutting 15,000 feet daily, in hard-



Antoine E. Cartier

woods, which comprise a large proportion of his business, and in the handling of which Mr. Vogel employs sixty hands the year round in the logging of white and black ash, soft and rock elm, beech, maple, birch, basswood and hemlock, in the bark of which latter variety of timber he is a heavy operator. These varieties of timber had never been held in repute as prominent articles of commerce and manufacture, during the period in which the white pine supply showed little sign of diminution, and in fact vast tracts of these valuable varieties from among which the pine had been taken, were allowed to lapse to the state for taxes, and it was not until about 1880 that lumbermen awoke to an appreciation of their value which has become more and more pronounced with the passing years, until at this time it is hardly an overdrawn statement to assert that the volume of production nearly equals that of pine in the State. Mr. Vogel at this time controls the cut of three mills, with an average production of about 50,000 feet per day, or from twelve to fifteen million feet per year, with estimated forest resources which will enable him to continue at this rate for ten or twelve years to come. This large cut finds market through a car trade with eastern markets, and by lake shipment to Chicago, Milwaukee and other lake ports. In this latter trade Mr. Vogel has been to some extent interested in vessel property, one of his vessels, the Island City, having been wrecked in 1894 with the loss of the entire crew, together with a cargo of 145,000 feet of lumber.

Mr. Vogel was married after going to Ludington, to Miss Sophia Hengstler, three sons and three daughters being the issue. He resides on the Lincoln road, following the lake shore at Ludington, on a property comprising twenty-five acres of land surrounding his comfortable home. Politically Mr. Vogel is a Democrat, while taking no very active part in politics. He is a member of nine fraternal societies, betokening the deep interest which he feels in matters of a social and fraternal character. As a man of conservative and excellent judgment he has amassed a handsome property, and as an enterprising and useful citizen occupies a deservedly high position in the esteem of the public.

Horace Butters, lumberman of Ludington, Mason County, Michigan, was born August 16, 1833, at Exeter, Maine. His father, Sewell Butters, was a native of that State, and was in the lumber business there for many years. He died in 1877 at the age of seventy-two years. His wife was Rhoda, daughter of John Robbins, a farmer. They had six children, of whom four were boys, our subject being the second son. He attended the common schools near his father's home up to eleven years of age, when he left home to make his own way in the world. He was employed for about four years on a farm, and subsequently engaged in logging on the Penobscot river. In 1851 he came west, and going to Manistee, entered the employ of J. & A. Stronach, lumber manufacturers. Two years later he had charge of one of their lumber camps, and in the following spring engaged in logging on his own account, thence gradually working his way along and extending his operations as his capital increased. In 1874 he leased a saw mill at Freesoil, which he operated three years. The firm of H. Butters & Co. was organized in 1877, and a shingle mill was built at Ludington and operated by them. The mill was subsequently sold to Smith & Foley. In the fall of 1878 the firm name was changed to Butters, Peters & Co., composed of the subject of this sketch, Mr. R. G. Peters of Manistee, who, together comprised the old firm, and Walter S. Goff (now deceased), of Manistee, Michigan. A large tract of pine lands in Sherman and Branch townships, Mason county, was purchased, the town of Tallman was laid out, and a saw mill built there, and the firm commenced the manufacture of lumber. Four years later the firm purchased the Cartier & Filer plant, situated on the south end of Pere Marquette lake, and in 1884, when the mill at Tallman was destroyed by fire they enlarged and improved the former mill, and have since manufactured their lumberth there exclusively. They have three wells, producing 1,500 barrels of salt per day. Their timber is brought to the mill by a narrow gauge railroad—the Mason & Oceana railroad—30 miles in length, being owned by the firm, who also own two large supply stores, one at each end of the railroad, which, together, handle $100,000 worth of goods annually. On February 21, 1887, the business was organized into a joint stock company under the title of the Butters & Peters Salt & Lumber Company, of which Mr. Butters is the president. Mr. Butters organized the Butters Lumber Company of Hub, North Carolina, with a capital paid in of $500,000, which company owns large amounts of North Carolina pine and cypress; himself and son M. F. Butters being now owners of 45 per cent of the capital stock of said company, the other 55 per cent being owned by E. B. Wright and his Boston associates. This plant is considered one of the largest and best in the south today. While manufacturing lumber at Freesoil, Mr. Butters' attention was directed to the laborious and costly methods in use up to that time for log skidding and loading, and bringing his inventive faculties to his aid, he finally invented and patented a machine to do this work at a much less cost than the old methods; it is known as the "Horace Butters Patent Steam Skidder." The machine is a most complete one for the purpose, the only drawback to its being universally adopted by lumbermen being its necessarily high price. Each machine costs $5,000, and notwithstanding this, there are about a hundred now in use, mostly in the southern states and California. The Butters & Peters Salt & Lumber Company now own the patent, having purchased it from the inventor. The machine has met Mr. Butters' highest expectations, and gives the utmost satisfaction to all who are using it, the use of steam almost wholly superseding the animal power usually employed. Mr. Butters was married January 1, 1853, to Miss Mary, daughter of Francis Norman, Esq., one of Michigan's pioneer lumbermen. She is a lady of most estimable social qualities, an entertainer whose friends are always sure of a cordial welcome, and enjoying the esteem of all who appreciate thought and care for others, by her generous and happy interest in those surrounding her. Their family of seven children have, with two exceptions, attained their majority. Mr. Butters has many friends and few (if any) enemies, being possessed of a genial, affable nature, and yet has been so wholly devoted to the management of his large business interests that, although a firm and earnest member of the Republican party, he has found no time to take an active part in politics. He early developed a capacity for the management of a great business, and his purchase in 1878 of the pine lands which still supply their mill with logs, was shortly afterwards referred to as showing a sagacity and foresightedness which few business men possess. He resides with his family in Ludington, and, as head of the Butters & Peters Salt and Lumber Company, has won an enviable reputation as a good manager and successful business gentleman. He has now retired, and spends his time between Ludington and traveling for pleasure, his son, M. F. Butters, having full charge of all his business. A friend of his who has known him and been associated with him for many years, speaks as follows:

> "Mr. Butters may be considered as the typical business man, deriving both pleasure and profit from the management of the well-conducted business of which he is the head. He is universally respected for his honorable and fair dealing. Any business project having for its object the employment of labor and the upbuilding of the city in which he lives, always finds in him a warm supporter. Having himself advanced from a small beginning he may be said truly to be the laboring man's friend, his ear and his purse being always open to any worthy enterprise for their advancement, as to every worthy object of charity."

Justus Smith Stearns is one of the foremost lumbermen of Michigan and Wisconsin, in fact, is one of the largest lumber operators of the present day, and is thoroughly familiar with every detail of the business, having worked at it in his boyhood days in an old mill owned by his father in York State. There he was born April 10, 1845, and while growing up he assisted his father, Herman S. Stearns, in tilling the home farm also, and thus early learned lessons of industry and perseverance which later in life stood him in good stead. The father was a native of the Green Mountain State but at an early day removed to New York State, where he was occupied in tilling the soil and cutting white pine at a small water mill which he built on his farm, until in 1870, at which date he moved to Ohio and took up his residence at Conneaut. Here he erected a steam saw mill for cutting hardwood, operated it six years, then came to Ludington, Michigan, and until his death made his home with his son Justus S. He was married in the east to Miss M. W. Smith of Connecticut, who died while they were living in Ohio. The subject of this sketch attended the public schools until he was sixteen years of age and completed his schooling in a commercial college. He learned to tally lumber when quite young and upon reaching a suitable age became his father's associate in business at Conneaut, and later started in business in Toledo, Ohio, where he owned a yard and handled hardwood. In the black swamps, twelve miles out of the city, he had a mill for sawing hardwood, which was sent by rail to Toledo and thence by water to eastern points, and there he continued a successful business until 1876, when he went to Michigan and started three portable mills at Woodville, about eight miles from Big Rapids, and a year later, when lumber became very low in price, he lost all he had through the death of Capt. E. B. Ward, who was associated with him in business. Mr. Stearns then came to Ludington and began working for the estate of Capt. Ward and in a short time had saved some means and again started in the lumber business for himself, but in a very modest way at Stearns' Station. His enterprise prospered, and he enlarged his plant, added a planing mill and bought tract after tract of land, and this was the nucleus of his present mammoth business. He cuts from 18,000,000 to 20,000,000 feet a year, his plant averaging 60,000 feet in ten hours, but for some years past it has been kept in operation night and day. Stearns' Station on the Flint & Pere Marquette railroad, about twenty-four miles from Ludington, is the only plant in that neighborhood, and since 1877 has cut most of the pine and much of the hardwoods in that section, and has made a specialty of maple flooring. Mr. Stearns has 15,000,000 feet of standing timber near his mill and other tracts near by, which will probably keep him employed for ten years to come. For some years he operated with a single circular saw, but in 1891 he equipped the mill with a double band saw, but also has a circular saw for hardwood. All his logging is done by rail and his product is shipped to the east in car lots. In conjunction with the Flint & Pere Marquette railroad he built branch roads to his timber tract, and has continually in his employ about 250 men. In 1893 the Flambeau Lumber Co. was established and they are now working on the Lac Du Flambeau Indian reservation in Vilas county, Wisconsin, which is situated on the Chicago & Northwestern railroad. Their mill at that point is admirably equipped, and has a capacity of 100,000 feet a day and in 1895 turned out 20,000,000 feet of lumber. Near by they have standing probably a ten years' cut. Here from 300 to 500 men are employed, and their logging is done both by rail and water and is finally shipped in car lots to the west. In 1894 Mr. Stearns established what is known as the J. S. Stearns Lumber Co., which has its plant at Odanah, Wisconsin, on the Bad river at the mouth of White river. They have built there a mill after the plan of the Flambeau plant, which has the same capacity and necessitates the employment of an equal number of men. This is a stock company with a capital of $150,000, of which J. S. Stearns is president, John S. Woodruff, vice-president, and S. K. Baker, secretary and treasurer. Here they have 300,000,000 feet of standing pine, which they will market by rail to the west as it is cut. Mr. Stearns has always been a supporter of Republican principles, and was a Harrison elector in 1888 from the Ninth Congressional district of Michigan and was chairman of the Republican County Committee for four years. He married Miss Pauline Lyon, daughter of Robert Lyon and sister of Thomas R. and J. B. Lyon of Chicago, and they have one son, Robert L. Stearns, who is a promising young artist whose drawings are frequently seen in the popular magazines. Mr. Stearns is a stock holder in the First National Bank of Ludington, and is a member of the firm of Stearns & Mack, general merchants of Scottville, Michigan. where an annual business of $60,000 is done. It can thus readily be seen that Mr. Stearns is a man of remarkable business capacity, but his accumulations have come as the result of honest effort and knowledge rightly applied.

Antoine E. Cartier.—Among the lumbermen of Ludington, Michigan, who in their conduct of business matters and the duties belonging to the various relations of life, have acquired a worthy name, is Antoine E. Cartier, who is old in experience and remarkably well posted in all that pertains to lumber. He was born in Canada May 16, 1836, near the town of Three Rivers, a son of John B. Cartier. His early days were spent in hard labor on the farm, and his school advantages were quite limited, but he possessed a fund of good common sense and a natural aptitude for business, and when he started out to do for himself at the age of eighteen, he was better equipped than the average youth of his age. The year 1857 found him in Chicago and in the fall of that year he came to Manistee, Michigan, and for two years thereafter worked for Joseph Smith, and while he got no compensation for his labor, he learned the lumber business and soon became manager of logging camps and logging in the winter, while his summers were spent in operating a saw mill at Manistee owned by Mr. Smith, in whose service he remained until 1860. Having saved some money he decided to purchase a tract of government timber land, and after due examination made his purchase and almost immediately after sold again at a profit of $9,000. This was the first business he ever transacted for himself and was no doubt very encouraging and satisfactory. In the fall of 1861 he became manager of the camps of Louis Sands about four miles from Manistee, and the following spring, in company with James Dempsey and Thomas Kenney, he took the contract from all the mills of Manistee to deliver to them the logs from the Manistee river. He and Mr. Dempsey soon bought out Mr. Kenney, and after the Booming Co. was formed he and his partner contracted to do the booming with that company for five years, and by recontracting did it for fifteen years. In 1872 they bought the mill that now belongs to the Manistee Lumber Co. for $26,000, and two years later when their booming contract expired, they began giving their whole attention to operating their mill. In 1877 the mill and boom companies of Ludington asked them to take the contract to start the logs on the Pere Marquette river, which they did, and Mr. Cartier has since made his home in Ludington. He soon after bought a half interest in the shingle mill of M. J. Donahue, which burned in 1884. In 1874 he became interested with Frank Filer in the plant now operated by Butters & Peters, but he and his partners, Dempsey and Filer, sold out in 1882. Mr. Cartier then purchased one-half of the mill he is now operating, and in 1884, after his shingle mill burned, he became the sole owner. This mill was fitted up with a circular saw, with a capacity of 50,000 feet per day, but in 1886 it was thoroughly remodeled and equipped with a double band saw, new engine and boiler and the capacity increased to 100,000 feet daily. Unfortunately this plant was burned in August, 1893, the loss over and above the insurance amounting to $65,000; the following year the mill was rebuilt with the same capacity as formerly. The most of their marketing is done by water; they own a fleet of vessels, including the barge Annie Laurie, which carries 275,000 feet, the Colin C. of 375,000 feet; they have $25,000 stock in the North Michigan Transportation Co., and a one-third interest in the Senoria Transportation Co. Mr. Cartier is interested in the Manistee Lumber Co., of which he is vice-president and has for thirty-three years been a member of that firm. In 1892 he formed a stock company to include all his interests, of which he is president, George R. Cartier, vice-president, W. A. Cartier, secretary and treasurer, and A. E. Cartier, director. Mr. Cartier is also president of the Ashland Lumber Co. of Ashland, Wisconsin, which has a capital stock of $100,000, with 60,000,000 feet of standing timber. He is vice-president and one-third owner in the Lesicattee Railroad Co., comprising twenty-five miles of road, over which the logs are brought to the mill. Mr. Cartier was married to Miss Eliza N. Avers at Manistee and they have the following children: Louis A., manager of the Hamlin plant, W. A., George R., Desere E., William E., Charles E., Rose and Ida J. Mr. Cartier has always been a Democrat and in 1881-2 was mayor of Ludington; he served as alderman in both Manistee and Ludington, and has always been known for his public spirit and liberality. He helped to organize the late Savings Bank of this city, owns the Hamlin Manufacturing plant, and in various other ways has shown his enterprise and push. His business career has been a remarkable one, and he owes his prosperity to no one save himself, for which he has reason to congratulate himself.

Charles Mears.—When one endeavors to probe the records of the lumber business of Chicago and the northwest to its inception, he is sure through all the history, from its earliest to its latest date, to find the name of Charles Mears. Beyond the time when he began to ship lumber to the young city (1838) our information is largely speculative, but from that time to the present we are able with approximate correctness to trace the growth of the lumber trade of Chicago, no less in the rapid increase of population in the great northwest, than by the figures which to so goodly an extent are available.

Charles Mears was born at Billerica, Massachusetts, March 16, 1814. He was the son of Nathan Mears, who was a leading citizen of that town and for many years was honored with the position of Select man of the town, which was fully equivalent in those days to the honorable position of mayor of a city in later times. He had come from old colonial stock, the name of his father, Robert Mears, appearing upon the public records of Billerica so early as 1726, in honorable connection. Charles Mears was the second son in a family of four sons and one daughter, and soon after the death of his father, which occurred in 1828, his mother having died two years previous, Charles, leaving school, entered mercantile employ at Lowell, Massachusetts, until in the fall of 1836, he was induced to leave a good business into which he had entered, and come west. In his journeyings young Mears stopped at Paw Paw, Michigan, where he decided to remain, and a few months later he was joined by his two brothers, Edwin and Nathan, and the firm of C. H. Mears & Co. was established, consisting of Edwin, Charles and Nathan Mears, in the general business of buying and selling anything and everything that the few settlers or many Indians, who still remained in the neighborhood, might desire to purchase or dispose of. A large business was to be done in the purchase of furs, the country at that time abounding in fur-bearing animals, which were hunted alike by white men and Indians. From Mr. Mears we gather much of early history as connected with the lumber business; of a saw mill at Allegan, Michigan, in 1836, the lumber from which was floated down the Kalamazoo river to its mouth; of the Hathaway (afterwards Throop) mill at what soon after became Grand Haven, and of the operations of the Michigan Lumber Company at Grandville on the Grand river in 1836, and later on the Flat river. Of the difficulties experienced by the young merchants, it is difficult for us of the present day adequately to conceive. Located one hundred and sixty miles from Detroit, whence must come their goods, with but an occasional steamer, at best once or twice a month, to land goods by small boats at the mouth of the Kalamazoo or St. Joseph rivers, or as an Indian trader over roads cut through the forest and which were often well-nigh impassable, it required just such enterprise and pluck as animated the Mears Brothers to make a successful business stand in the semi-wilderness. Their first stock of goods was sent from Detroit by steamer, which was broken into at Mackinaw, and many of their goods stolen. There was not a dock upon the entire coast at which a steamboat could make a landing, and when the goods were unloaded by small boats upon the beach, there was the long and difficult wagoning over a fifty or sixty mile wagon trail to the place of business. In 1838 Mr. Mears brought his first cargo of about 20,000 feet of lumber to Chicago, landing it upon a half dock which he formed near the present Clark street bridge, the only apology for a dock which then existed, and which did not appear to belong to anyone in particular, as he unloaded several small cargoes upon it, without let or hindrance.

In 1839 the brothers dissolved partnership in the business at Paw Paw, which was retained by Nathan and Edwin, Charles having a year previous commenced operations in the lumber business, by building a mill on the Michigan shore at White Lake. This was a water mill and in addition to the gate saw, which was the only one known at that day for the cutting of logs, he added an automatic clapboard and shingle mill, the former operated by a rotary saw of size sufficient to cut a cant of six to ten inches in thickness. In passing, it may be remarked that this machine, which was a decided favorite in those days, has been unknown to the saw mill world for many years. A short time subsequently, Mr. Mears invented and operated a machine for making beveled siding from eight feet round logs, a device which has been improved upon in later years, but was never brought into extensive use. It may here be said that Edwin Mears enlisted in 1862 and died in the army, and Albert, the younger brother, is now a resident of White Hall, Michigan. In 1839 Mr. Mears decided upon settling at Milwaukee for the sale of his lumber, and continued there until 1847, taking into his employ Mr. Eli Bates, previously keeper of the light-house at Milwaukee, who subsequently became one of the most prominent characters in the lumber circles of Chicago. In 1847 Mr. Mears decided that Chicago presented greater advantages than Milwaukee for an enterprising young man, and that with the opening of the Illinois and Michigan canal, the vast prairie country of the west to the Mississippi, south to St. Louis, Missouri, was now available territory to the lumber trade of Chicago, and summoned his brother Nathan from Paw Paw to join him in the lumber business at Chicago. The firm of C. Mears & Company commenced business on the river between Kinzie and Indiana streets, with subsequently a yard at Polk street, until 1859, when the partnership was dissolved and the subject of our sketch devoted his time to the manufacture of lumber at several points along the Michigan shore from White Lake to the Au Sables, having built in all fifteen mills, and established villages which have become of greater or less importance in the counties of Muskegon, Oceana and Mason. For a portion of the time he was associated with Giles P. Slocum and operated mills at White Lake, at Middlesex (now Pentwater), at Lincoln, north of Ludington, and at Mears, south of Pentwater. In the course of his many years of saw milling Mr. Mears had opened six harbors on the lakes, by building piers and causing the current to wash out a channel, and a flat pier built by him at Lincoln Park was the means of saving the Lake Shore drive at Chicago from destruction. He also, with his brother Nathan, built a flat pier in the north branch of Kinzie street. It is now sixty years since Charles Mears in 1838 brought his first cargo of about twenty thousand feet of lumber to the youthful city, and in that year it is a liberal estimate to place the receipts of lumber at three million feet, they probably did not much exceed one-half that quantity. Mr. Mears lived to see this small beginning grow to 2,250,297,290 feet, the sum of the receipts of 1892 and the cargoes of 20,000 to 40,000 feet each, increased to cargoes ranging from 200,000 feet to as high as 500,000 and even to 800,000 feet. During his career at and in the vicinity of Chicago, indeed since he brought his first cargo to that city, he had witnessed the growth of the lumber production of the northwest probably not to exceed one million feet in 1842, to 8,000,000,000 feet as the present yearly production, and Chicago from a population of 3,820 souls located in a swamp, growing year by year until with a population of 1,870,000, it has become second only to New York in population and commercial importance, among the prosperous cities of the nation. Mr. Mears remained a bachelor until 1874, when he was united to Miss Carrie A. Middleton, and the union was blessed with two daughters, Carrie E., aged 17, and Lucy L., aged 14.

At the ripe age of 81, in full possession of his faculties, and in the enjoyment of a comfortable fortune, Mr. Mears spent the closing years of a busy and useful life in the bosom of a loving family, occupying an elegant mansion at 345 Ohio street, finding pleasure in reciting the experience of the days when Chicago was but a small hamlet, and when the pine woods of Michigan were as yet unexplored and unsurveyed, and in the marvelous changes which have been wrought, pointing to his own participation and enterprise, with a just feeling of honest pride, until his death in 1895, crowned with honors due to a long and useful life.

CHAPTER XVI.—MANISTEE COUNTY.

EARLY DEVELOPMENT OF MANISTEE.—PROGRESS OF THE MILLING INDUSTRY.—ITS WONDERFUL GROWTH, AND PRESENT PROSPERITY.

FEW localities have exercised a greater influence in the lumber manufacture of the State than has the county of Manistee. Manistee river penetrates with its branches a vast territory in the counties of Manistee, Wexford, Missaukee, Kalkaska, Otsego and Crawford, the Little Manistee with Pine river having branches reaching into Lake and Osceola counties. The quality of the pine timber of this section compared favorably with that of the most favored portions of the State, and it is doubtful if any of the numerous streams of the State have equalled the Manistee in the extent to which the better class of timber has been realized. Penetrating as the river and its branches do a country where hardwoods predominate, it will be recognized by all lumbermen that the conditions are most favorable for the growth of a superior quality of pine timber. The country bordering upon the river for a distance of twenty-five miles from its mouth and for the width of six miles, was held until about 1848 as an Indian reservation.

A party of Massachusetts men, headed by a Captain Humphrey visited this locality in 1831 with the intention of building a saw mill, being impressed with the extent and value of the pine timber, which at that time covered the present site of the city of Manistee, extending from Lake Michigan and forming a dense forest about the shores and territory contiguous to the "little lake," Manistee. They selected a mill site on section 36 (town 22 north, range 14 west) and got out the timber for the construction of a dam, and for a block house in which to reside. They were nearly ready to begin putting in the dam when the Indians compelled them to desist, and the project was abandoned; the block house was still standing as late as 1876. A second attempt to dam the river was undertaken in 1836, probably by the late Charles Mears, who died at Chicago in 1895, but this also met with opposition from the Indians and was abandoned. In the fall of 1840 John Stronach, a Scotch Canadian, looked the ground over, and the following year in company with his sons Adam, James and John, erected a dam and mill at the mouth of the Little Manistee river. About 1845 Joseph Stronach a brother of John, came to Manistee and erected a steam saw mill, the first at this point, on the reservation at the north end of Manistee lake. He in 1849 removed to and built a water mill at Portage lake in the same county.

In 1848 Roswell Canfield of Racine, Wisconsin, arrived and built a steam mill at the mouth of the Manistee river. About the same time came Joseph Smith from the Green Bay district and built a steam saw mill at the north side of the outlet of Manistee lake, and the same year came Francis Batchelor from Maine, who erected a steam saw mill on the south side of the lake outlet, placing therein a circular saw, probably the first, or among the first, for log sawing, which up to this time had been tried in the State, but from lack of experience in the dressing of the saw, it was found impossible to prevent it from cutting "bias" and a wreck of the machinery resulted, the circular was abandoned, and the more reliable and better known "mulay" was substituted. The other mills on the lake at this time were built as double mulay mills, with the accompaniment of lath mills. And here it may be said that in the introduction of each improved method of manufacturing lumber, difficulties at first seeming insurmountable have been encountered, only to demonstrate the need of improvement and to stimulate inventive genius to overcome the difficulty and to make the new method practicable in the hands of those who are to handle it. This was the experience of the sash or gate saw, in its evolution from the stage of sharks' teeth or obsidian, to iron, thence to steel; in the evolution of the sash to the mulay, the mulay to the circular and the circular to the band mill. In each stage of progress the earlier experimenters became thoroughly discouraged, not because they had not struck the proper key-note, but because they did not as yet comprehend the conditions under which the new adaptations must be operated, and clinging too closely to old methods, their failures demonstrating that the new conditions required an abandonment of many preconceived notions, but inventive genius soon converted each failure into success, and a new era in lumber manufacture was inaugurated. It will be noted that in this as in all other lines of material progress, necessity was the mother of invention, each improvement meeting with no general acceptance until the increased demand for lumber from a rapidly growing nation, demanded an enlarged or more economical manufacture.

In 1850 there were three water mills and four steam saw mills in operation on the Manistee, all of which were mulay mills with a combined yearly capacity for cutting about ten million feet of lumber.

In 1851 Mr. Canfield erected a second steam mill at the mouth of the Manistee river and his son, John Canfield, was placed in charge, and has continued in charge of the business to the present time. Few names have been more closely or more honorably known in western lumber circles than that of John Canfield, and we may add, Adam Stronach, beside whom we doubt if at this time there remains any of the Manistee lumbermen of the early period of 1848 or 1850, although many descendants of the Stronach, Smith, Canfield and Filer families still reside, honored citizens of the now "city" of Manistee.

In 1850 Grand Haven, ninety miles distant, was the nearest postoffice, and the lake beach the only road by which it could be reached. At Grand Haven also resided the nearest physician and the nearest justice of the peace. The harbor, except after a freshet, had but four and a half feet on the bar, and for shipment the lumber for many years was rafted out to vessels at anchor in Lake Michigan, and this was attended with losses which often reached as high as 25 per cent of the product. Supplies were of necessity brought from across the lake in vessels and landed by means of the vessels' small boat; later on scows were built for this service, but it was no unusual thing for the winter's supply of baled hay to be cast from the vessel's deck into the lake and floated ashore to be dried on the sandy beach. It was not a day for daintiness either with man or beast, and not only here, but in other parts of the State as well, it was a well understood rule to "find no fault with the board unless the landlord insisted on your eating unboiled boot-legs." Times were frequent when "sow belly" was a luxury, and when supplies were still further delayed, boiled "boot-leg" or its equivalent was considered regular. The writer once "feasted" in a lumber camp on a Christmas day on baked porcupine, but has never "hankered arter it."

At the risk of repetition we copy from a local history of Manistee published in 1882 the following extract:

> "The first mill was built by J. and A. Stronach in 1842, and was later known as the Paul Carmine mill, at Stronach (near the mouth of the Little Manistee river). It has been rebuilt several times, but is called the oldest mill on Manistee lake. Roswell Canfield, (elsewhere mentioned) father of John, built a mill in 1848, a two mulay mill. In 1854 a Massachusetts man, Francis Batchelor, built a mill and put in a circular saw, which he was unable to work successfully and soon replaced it with a mulay saw. In 1850 Joseph Smith built a mill which in 1857 passed into the hands of Michael Engleman, who was one of the first to make a success of the circular. Soon after mills were erected by H. N. Green, Louis Sands and John Canfield (second mill)."

In 1853 Delos L. Filer (of whom extended reference elsewhere) came from Racine (where he had been in the employ of Roswell Canfield) and purchased lands near the mouth of the river and in 1858-9, in company with L. G. Smith, bought the Batchelor mill and in 1861-2 bought the McVicker estate, comprising nearly two-thirds of the site of the present city of Manistee, which he sold in 1866 and organizing the firm of D. L. Filer & Sons (D. L., E. G. and Delos W.) purchased 2,500 acres south of Manistee where they built the mill still operated by Filer & Sons Co., and laid out the village of Filer City. This mill when built had capacity for cutting about 8,000,000 feet annually. This mill has since been subject to extensive renovations, and was the first to adopt the use of the band saw (1885) and also the first to introduce steam feed, paper frictions and other labor-saving devices calculated to reduce the cost of manufacturing lumber, while increasing the output of the mill.

By 1867 the manufacture at Manistee had increased to a volume 110,400,000 feet, the actual cut of that year; the aggregate capacity of the mills being stated at 150,000,000 feet per year. The sales of this year averaged five dollars per thousand feet. Several new mills were erected in 1868 and a sensus of that time gives the following details with capacity per day of ten hours: Lyson & Co. (1852), oldest mill in the county, 25,000 feet; Magill & Canfield (1849), 40,000 feet; Green Bros. (1863), 50,000 feet; M. Engelman (lower mill, 1865), 25,000 feet; M. Engelman (upper mill), 100,000 feet; Canfield Brothers (new, 1866), 65,000 feet; Shrigley & Canfield (1866), 50,000 feet; Filer & Sons (new, 1867), 50,000 feet; Tyson & Co., new mill (1868, to replace a new mill of 50,000 feet capacity, blown up and burned in 1867, with a loss of eleven lives), 50,000 feet; Ruddock, Gifford & Co. (1868), 60,000 feet; Maxwell, Punot & Co., 40,000 feet; Wheeler & Hopkins (1868), 40,000 feet; Leach & Russell (new, 1868), 20,000 feet; J. M. Hoffman, 18,000 feet; Taber & Brothers, 30,000 feet; Paggott & Thorson (new, 1868), 50,000 feet (this mill has since been known as the Stronach Lumber Co. mill); J. Yhelm (new, 1867), 12,000 feet (later known as the Paul Carmine mill); Moffat & Skillings, 10,000 feet.

In 1873 there were twenty first-class mills on the lake, with a cut for that year of 159,000,000 feet, which in 1880 had increased to 214,615,000 feet with 440,424,600 shingles, again increased in 1881 to 224,825,952 feet of lumber and 620,648,000 shingles. With the rapid extension of the business and increase in the number of mills it became necessary to systematize the running and distribution of logs in the rivers, and February 23, 1869, the Manistee Boom Company was organized for handling the log output of the Big Manistee river, the incorporators being John Canfield, George W. Robinson, T. J. Ramsdell, E. E. Benedict, E. G. Filer and Henry B. Tisdale.

John Canfield

John Canfield was elected president, and T. J. Ramsdell secretary and treasurer. A few months later the Filer City Boom company was organized for the same purposes on the Little Manistee, the incorporators being G. W. Robinson, E. G. Filer, D. L. Filer, D. W. Filer and T. J. Ramsdell. Mr. Robinson was elected president and E. Golden Filer secretary and treasurer. As the work of these boom companies practically represents the mill cut of each year we append the figures in detail:

	Manistee Boom Co.	Filer City Boom.
1869	96,291,417	....
1870	96,334,696	24,886,699
1871	113,125,125	29,243,077
1872	125,356,904	30,199,825
1873	154,679,382	25,140,861
1874	148,295,060	33,923,323
1875	151,950,668	16,975,529
1876	140,294,794	7,429,447
1877	139,570,765	12,850,783
1878	171,422,539	7,935,666
1879	197,010,969	14,711,061
1880	198,915,742	13,352,136
1881	208,391,088	12,995,543
1882	223,844,838	22,957,952
1883	218,715,568	27,769,206
1884	248,812,668	
1885	215,641,134	
1886	219,384,703	
1887	249,956,859	
1888	246,090,313	
1889	233,146,927	
1890	238,128,770	
1891	242,336,590	
1892	252,801,657	
1893	202,203,183	
1894	214,226,973	
1895	204,195,371	
1896	*223,688,575	
1897	*238,358,575	
Total	5,613,171,849	270,360,928

*includes railroads.

As this does not include any of the manufacture of the period of twenty years from 1849 to 1868, it is safe to estimate that the forests adjacent to the Manistee river have since the year 1849 yielded a gross quantity of fully eight billion feet of lumber, and there is little doubt that before the entire cessation of lumber manufacture at this point, the figures will be increased by fully two billion feet bringing the grand aggregate of production from this single stream to the enormous output of 10,000,000,000 feet. The total reported lumber cut of Manistee between 1873 and 1897 was 5,543,268,666 feet, together with 9,789,645,612 shingles which reduced to logs at the rate of eight thousand shingles to one thousand feet of logs gives an aggregate of 6,836,974,367 feet of logs and lumber, and estimating the product of the period of twenty-five years from 1848 to our first records in 1869, at 20 per cent of this quantity, or an average of 52,254,603 feet per year and we arrive at a gross production for the Manistee river of 8,204.369,240 feet of timber, which is more probably an under than an over estimate of the product of this locality, since the erection of its first saw mills, especially in view of the fact that no yearly statistics have ever been recognized as more than approximately correct.

These figures represent only the manufacture of this one locality and takes no account of the immense amount of timber which, growing upon the borders of the streams, or upon lands legitimately tributary to them, is cut at interior mills and conveyed by the Grand Rapids & Indiana, and Flint & Pere Marquette railroads to a southerly market, and thus are lost to any statistics relating to the product of the Manistee river, while it would undoubtedly be safe to add at least 25 per cent to the reported cuts of the mills in the difference between log scale for boom rates, and the actual timber scale, thus bringing up the actual cut of the mills during the years enumerated in the above table to fully six and three-quarters billions feet, beside the quantity estimated for the preceding twenty years. In a representation made to congress in 1892 by a committee of leading citizens, in an endeavor to obtain an appropriation for the improvement of the harbor, we find the following statement:

> "There are four railroads which traverse the immense belts of pine and hardwood timber, accessible and tributary to the lake. Our saw mills during the season of 1891 manufactured 300,599,782 feet of lumber, 321,562,750 shingles, 40,293,050 pieces of lath. There are also ten large salt blocks run in connection with the mills, the product of which for 1891 was 1,420,036 setts of heading, 31,051,236 barrel staves, 1,102,762 salt barrels and 1,291,377 barrels of salt, and as the supply of salt is inexhaustible, this amount can continue to be manufactured for almost any length of time that is conceivable. In addition to the above statement for the year 1891, there must be added to the exports from this city, the following amounts that have come to it by rail: From the Manistee & North Eastern railroad there has been received of lumber 125,000,000 feet; shingles, 75,000,000; cedar posts, 2,000,000; cords of bark, 30,000; cords of wood, 10,000; beside 12,000 tons of farm produce. It is estimated that this road has 2,000,000,000 feet of timber tributary to the Manistee and an amount of bark beyond our power to estimate. The Manistee & Luther road places within reach of Manistee an amount of standing timber estimated at 800,000,000 feet, owned by Manistee parties. The Manistee & Grand Rapids railroad adds at least 500,000,000 feet of pine and 1.000.000,000 feet of hardwood. The Flint & Pere Marquette railroad also has 100,000,000 feet of pine and 100,000,000 feet of hardwood, and the Toledo & Ann Arbor railroad at least 100,000,000 feet of hardwood. The estimated amount of standing timber tributary to the Manistee river is 4,200,000,000 feet."

These figures give a fair idea of the past experience and future prospects of the lumber and timber supply of Manistee and its tributary streams, and have been somewhat extended to cover the territory which on the lower peninsula at least, comprises the only extensive aggregation of timber supply now remaining.

The list of manufacturers at Manistee and the reported cut of 1895, included Canfield & Wheeler, (two mills), 13,000,000; Manistee Lumber Co., 20,978,000; Eureka Lumber Co., 16,867,000, shingles. 5,567,000; Louis Sands, 30,000,000, shingles, 30,500,000; Buckley & Douglas, 37,723,981, shingles, 60,039,000; State Lumber Co., 16,211,000, shingles, 27,259,000; S. Babcock, shingles, 21,499,000; Rietz Lumber Co., 7,000,000, shingles, 4,000,000; Emery & Stokoe, shingles, 15,000,000; White & Friant (not operated); Filer Sons' Lumber Co., 12,000,000, shingles, 8,000,000; Union Lumber Co. (formerly Stronach), 12,364,000 shingles, 12,215,000; Hopper (McKillop mill), 6,000,000, shingles, 3,000,000; Baker Lumber Co., (no report); Canfield Salt & Lumber Co., (East Lake mill), 19,583,693, shingles, 21,224,750; R. G. Peters Salt & Lumber Co., (two mills), 54,188,578, shingles, 40,000,000; J. O. Nessen, Agt., 1,200,000, shingles, 5,000,000; J. C. Pomeroy, 3,000,000, shingles, 12,000,000.

In 1872 a company of United States coast surveyors visiting Manistee told Charles Rietz, one of the leading lumber manufacturers, that in their opinion salt in paying quantities could be found in the rock strata underlying the town. While for several years subsequent the idea was looked upon as chimerical, Mr. Rietz was impressed with an idea that there might be something in it after all. The region about the Saginaw valley, regarding which Professor Winchell of the State university had in 1855 made the same prophecy, and in which in 1861 such success had attended an endeavor to demonstrate the truth of the prediction, that the salt manufacture of Saginaw valley* had reached a magnitude reaching into the hundreds of thousands of barrels, induced Mr. Rietz in 1879 to undertake the raising of a popular subscription for testing the possible salt fields of Manistee. In this he succeeded to the extent of $8,300 to which nearly all of the saw mill owners subscribed Mr. Rietz himself being a most liberal contributor, and undertaking the charge of the experiment at his own mill. A well was sunk to the depth of 2,000 feet at which depth a fifty foot strata of pure rock salt was penetrated, the brine of which was found on salometer test to be the strongest and purest yet discovered in the State, analyzation developing organic matter of but .002 per cent. The well was tubed and a 2⅝-inch pump applied. Mr. Rietz at once erected a salt block of 400 barrels per day capacity, and practically demonstrated the value of the discovery. The following year M. Engleman put down a well to a depth of 2,032 feet and erected a "pan" block with capacity of 150 barrels per day, and was soon followed by Canfield & Wheeler with a pump of 3¼-inch, and capacity for making 500 barrels per day. R. G. Peters at East Lake put down a well at his mill with a block turning out 600 barrels per day, which at that time was the largest in the State. With succeeding years a majority of the manufacturers followed suit until in 1895 Manistee contributed no less than 1,318,139 barrels of the grand total of 3,529,362 barrels, which comprised the salt production of Michigan for that year. The local production was increased in 1896 by the erection at the Buckley & Douglas Lumber Co. mill of an immense vacuum pan block, capable of producing 2,500 barrels per day, running eleven months in the year, which commenced manufacturing in the summer of that year, and the aggregate production of this point in 1897 reached a volume of 1,827,427 barrels, out of a total production of 3,622,764 barrels of salt in the State.

At some period antedating 1857 a water mill was erected at Herring creek, mouth of the Betsey river, in Beuzie County, north of Manistee, by a man named Averill, but we can find no record beyond the bare fact of its erection, and the shipment of the lumber to Chicago. L. W. Cass erected a water mill at Benzonia in 1864 of which occasional mention is found in the annual statement of production, F. W. Clark being credited with a cut of 300,000 feet in 1895. Various small mills have from time to time been operated in all parts of interior Michigan, whose production has figured as "miscellaneous mills," or have been of too little importance in the eyes of their owners or the statistician to be included in the reports, a complete record of which would fill a volume. Reference elsewhere made to the salt industry of the State will reveal to the reader the great importance of this adjunct to the lumber business of the State of Michigan, but enough has been said to show the important position held by Manistee with reference to this production.

Among the leading operators in lumber at Manistee we present the following personal sketches, which more fully amplify this important center of lumber and salt production.

Roswell Canfield.—Among the earlier lumbermen of the northwest was Roswell Canfield, who was a lumber dealer in Racine, Wisconsin, from about 1842. Mr. Canfield was a native of the old Bay State, having been born at Sandisfield, Massachusetts. His father had been a farmer and merchant, as the two were so frequently combined in the early part of the century. He was a descendant of the sixth generation from Thomas Canfield, who, with his brothers Timothy and Matthew, emigrated from England early in the 17th century, settling at Milford, Connecticut, where his name appears as early as 1846, and was a member of the commission which obtained a charter for the colony of Connecticut. John Canfield, the father of Roswell, was a native of Massachusetts, and was from 1796 to 1802 a member of the State Assembly. Roswell's wife, Miriam, was a daughter of Elisha Harmon of New Marlboro in Berkshire county, Massachusetts.

In 1848 Roswell Canfield, then a lumber dealer at Racine, Wis., visited Manistee, and being impressed with the facilities which were available for obtaining pine timber, the site of Manistee being at that time a pine forest, he secured a tract of government land near the mouth of the river and decided to build a steam saw mill containing two circular saws, selecting a point near where the river emptied into the lake, as a suitable site. The mill when completed had capacity for sawing from ten to twelve thousand feet in twelve hours. Before the mill was completed, he was taken sick, and his son John, who had been with him in the yard at Racine for some months, was summoned to Manistee, and remained until the mill was in successful operation, when he, too, returned to Racine. Mr. Canfield recovered his health, and in the following year returned and began the erection of a second mill of the same character, and located it near to the first one. Again taken sick, he returned to Racine, and his son again came to Manistee and took charge of the mills, and has since made Manistee his residence. Roswell visited Manistee for a few hours in 1850, but never was a resident of the city, nor did he again visit it previous to his death in 1860, although in fair health and carrying on the wholesale and retail lumber business at Racine. He was a man who was highly respected in the community in which he dwelt, as a useful and public-spirited man. In addition to the manufacture in Manistee and the yard at Racine, Mr. Canfield and his two sons, Edmund and John, established a yard on Market street, Chicago, which was continued for several years under the management of Edmund Canfield, being given up after the stringent times of 1857-8.

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*See Saginaw.

John Canfield, son of Roswell, was born at Sandisfield, Massachusetts, in 1830. He attended the common schools of his native town, and at Homer, New York, completing his education at Racine, Wisconsin, to which place his parents removed in 1842. At the age of 14 years, John left school and took a position as clerk in a mercantile establishment at Racine, in which he continued for three years. As he advanced in years he worked about his father's lumber yard, which was known as that of R. Canfield & Son, (his brother Edmund being a partner), in piling and selling lumber, and in 1848 at the age of 18 took charge of the books, and was from that time employed in the business at Racine and in superintending the mills at Manistee, until in December, 1849, he went to that city, which with few temporary interregnums, has been his home for nearly half a century, and the firm became R. Canfield & Sons, John being a partner. Here he took charge of the mills which his father built at the mouth of the Manistee river, and operated them with success. The first of the mills was burned and rebuilt. (The firm lost three mills by fire between 1864 and 1867.) The second stood until it perished by natural decay. About 1860 his father died, and the firm became E. & J. Canfield, and soon after erected a mill on Little Lake, containing a mulay and a stock gang, and about the close of the war, in 1865-6, John formed a partnership with James Shrigley, and under the name of Shrigley & Canfield erected a mill long known as the "Shrigley Mill" near the mouth of the Little Manistee river. This mill contained two circular saws and a gang edger of the type then but recently introduced, but found to be indispensable in the proper and economical manufacture of lumber. This mill was burned and rebuilt, burned and again rebuilt, and with the more modern band mill of which it contains two, it has now capacity for cutting 100,000 feet of lumber daily, while with a "ten block" and a "hand shingle machine," it has also capacity for 150,000 shingles per day. In 1887 Mr. Canfield became connected with the Stronach Lumber Company, near the mouth of the Little Manistee river, succeeding John Thorson as president of the same. This company closed its operations in 1895 and the property passed into the hands of the Union Lumber Company. Edmund Canfield died in 1868, and in 1871 Mr. Canfield formed a partnership with Edward D. Wheeler, and the firm of Canfield & Wheeler still continues operating the mills at the mouth of the river, and also the mulay and gang mill above mentioned at Little Lake, with capacity for sawing 15,000,000 feet per year. Time would fail to exploit all the various business combinations with which Mr. Canfield has been connected since he took up his residence in Manistee. Probably no man in the state or nation has been more extensively engaged in operations involving the ownership of timber lands and the manufacture of lumber. His interests on the Manistee river have been the most extensive, but there are no means by which a correct computation can be made of the aggregate volume of his various operations. Besides his pine lands in Michigan, he for several years held a body, estimated at 600,000,000 feet, of standing pine in the Ashland district of Wisconsin, which was injured to the extent of $175,000 by the disastrous forest fires of 1894. This was his first loss of timber by forest fires, and the first year in many in which his aggregate gain by natural growth of his standing timber, did not equal the loss at the period mentioned. From his earliest connection with the trade, which may be dated from the time in 1849 when he took up his residence in Manistee, Mr. Canfield has been ready at all times to purchase or to sell timber land and lumber which bore a price satisfactory to his judgment, and no man has been more active and energetic in these lines. A man of strictest probity, he has possessed the confidence of his fellow dealers, both at home and abroad. The yearly handling of lumber in which Mr. Canfield is interested would for many years exceed 150,000,000 feet, and it is safe to say that his operations since 1849 would in the aggregate exceed a billion and a quarter feet of lumber. Soon after it was demonstrated through a popular subscription, in which Mr. Canfield was one of the most liberal investors, that Manistee was underlaid by a strata of rock salt, Canfield & Wheeler (in 1878) erected a salt block of five hundred barrels daily capacity in connection with their saw mills, using the waste of the mill in the generation of steam with which the evaporation of the brine was accomplished, while the other debris of the mill, which had formerly been a source of expense in its removal, was converted into barrels in which the salt is packed for shipping.

Mr. Canfield was married in 1854 to Miss Helen M. Beach of Berkshire, Massachusetts. Mrs. Canfield died in 1860, leaving three daughters who are still living. In 1865 he was united to Frances V. Wheeler of Berkshire County, Massachusetts, by whom he has two sons, Frank W. and Charles J., both of whom have reached man's estate and are engaged in the office of the firm.

Mr. Canfield has taken an active part in promoting the growth and prosperity of Manistee, and few men possess to a greater extent the respect and confidence of their fellow citizens. His connection with the forestry interests of the state of Michigan embraces practically the entire period of its commercial progress. When he took charge of the mills at Manistee in 1849, the entire lumber product of the state probably did not exceed 150,000,000 feet per year. He has borne an active part in the growth of the business to a production exceeding 3,000,000,000 feet per year and is a witness of the practical extinction of the forests which were then considered inexhaustible. Indirectly therefore, he has been an important factor in the building of the great cities of the lakes, and the populating of the vast prairies of the west, which, but for the plentiful supply of a cheap building material, must have remained for ages longer, as tenantless as they had lain for preceding ages. No great benefits have ever been reached in the history of mankind without some corresponding losses, and in the loss of the forests we have gained the progress of a rich and populous nation, the pride of the world.

Edward D. Wheeler.—No history of the development of the lumber trade of Michigan and particularly of the west side of the State, and still more particularly of that connected with Manistee, would be complete without reference to Edward D. Wheeler of the firm of Canfield & Wheeler, than whom no house has enjoyed a more enviable reputation from the character and extent of its lumbering operations and the probity of its members.

Mr. Wheeler is a descendant of an old colonial family, dating back to 1735, when Benjamin Wheeler with his brother, coming from Scotland, settled in the state of New York. Four years later, Benjamin, separating from his brothers, settled in Berkshire County, Massachusetts, then a dense wilderness, but which has in later years become noted as one of the most fertile and beautiful, as well as most renowned portions of the eastern states, and here he passed the winter of 1739-40 alone, there being no white settlers nearer than Sheffield in Connecticut, more than a hundred miles distant. The farm which he then settled upon, remained to be known as the Wheeler homestead for a period of one hundred and forty-six years, and until, having remained in the family for five generations, it passed into other hands in 1885.

Zenas, the second son of Benjamin, was in 1764 an officer in a company of militia organized in New Marlborough, which twelve years later did honorable service in the war of the revolution in the successful endeavor to free the country from the yoke of Great Britain. His son, Abram, father of the subject of this sketch, was a non-commissioned officer in the war of 1812, in a company of volunteers which was organized in New Marlborough, and of which his elder brother Warren was captain. Abram was for many years engaged in mercantile pursuits in his native state, and in 1825 removed to Hudson, New York, where he continued in the same line of business. In 1857 he removed to Morris, Illinois, whence two years later, he removed to Joliet, Illinois, where he continued to reside until his death, at the ripe age of seventy-seven years, which occurred August 17, 1872, at Manistee, while on a visit to his son of that place. His wife, Lorinda (Canfield) who was also a native of New Marlborough, survived her husband for two years, and died at Joliet, Illinois, January 14, 1874, aged sixty-nine years. They had eight children, of whom three sons and four daughters are still living, Edward D., the subject of this sketch, being the second son. He was born at New Marlborough, Massachusetts, May 8, 1843, and owing to the failure of his father's health, he was early in life called to aid in the support of the family. Until the age of fourteen years, he enjoyed the benefits of a common school education, although when but nine years of age he, during the summer, was employed as a clerk in a store at Sheffield, Connecticut, returning in winter to continue his schooling in the district school. On the removal of the family to Joliet he spent two years in a drug store at Morris, Illinois, and later at Joliet, and was thus engaged at the breaking out of the rebellion. Here the military ardor of his ancestors asserted itself, and he made several attempts to enlist, but not being of age, met with the strenuous opposition of his parents, and was prevented from going to the front. In order to keep him from enlisting, he was in 1862 sent on a visit to relatives then residing at Manistee, and for three years was in the employ of the Canfield Brothers as a general roustabout and utility man in the mills, stores and camps of the company. Here he made himself generally useful, his first occupation being as a fireman in the boiler house, and at the end of three years occupying the position of foreman of the mills. He now (1865) returned for a year to his old home at Joliet, but exemplifying the old adage, that no man that had ever had a taste of the woods and saw mill, is content in any other occupation which does not include the handling of lumber, he in 1866 returned to Manistee in the employ of M. Engleman & Co., as bookkeeper on a salary of twelve hundred dollars per year, and soon found himself in entire charge of the immense lumbering and shipping interest of that firm, and when two years later the business was purchased by Cushman, Calkins & Co., he was engaged by them at a largely increased salary in addition to an interest in the business, and remained as general superintendent of the business until September 1871. Mr. Edmund Canfield dying about this time, Mr. Wheeler purchased his interest in the firm of E. & J. Canfield, and in connection with the surviving partner John Canfield, formed the firm of Canfield & Wheeler, which has since continued and is known as one of the most extensive lumbering firms of the State.

About the same time Mr. Wheeler associated himself with William Magill, now of Chicago, and John Canfield in the firm of Wheeler, Magill & Co., and this firm operated the mill, now the property of the Canfield Salt and Lumber Co., to whom it was sold in 1886, when the firm of Wheeler, Magill & Co., was dissolved. Canfield & Wheeler own and operate the mill at the mouth of the Manistee river originally built by Roswell Canfield, and subsequently operated by E. & J. Canfield, the annual output of which is 15,000,000 feet, to supply which the firm owns large bodies of pine lands, situated principally in the counties of Manistee, Wexford and Missaukee, together with a farm of about three hundred acres, located within the limits of Manistee, and of which about two hundred acres are under cultivation. In connection with the mills are extensive salt blocks, which produce about 80,000 barrels per year, of which fifty thousand barrels are of the quality known as "table" and "dairy" salt, being the largest direct manufacture of these grades of any of the many salt producing establishments in the country. By reference to the pages of this history which treat of the discovery and manufacture of salt in connection with the lumber manufacture of the State, it will be seen that the brine of the section is chemically pure, containing but .02 per cent organic matter, and by the improved methods of manufacture adopted by this firm, these finer grades which were formerly obtained only by a process of grinding, are readily obtained by direct granulation of the brine. In addition to the management of the immense lumber and salt interests which have fallen to the supervision of Mr. Wheeler, he is a stock holder in the Manistee Boom Company, whose yearly output of logs to the various mills of the city is noted elsewhere. He was secretary and treasurer of this company during the years 1874-5 and served a number of years on its board of directors.

Mr. Wheeler is an active and prominent member of the Masonic fraternity and was, April 17, 1867, the first initiate of Manistee Lodge No. 228, F. & A. M., while working under dispensation; is a member of Manistee Chapter No. 65, R. A. M., of which he was a charter member, having taken the Royal Arch degree in Oceana Chapter at Pentwater, Mich., August 24, 1868. He is also a charter member of Manistee Commandery No. 32 K. T. of which he is a Past Eminent Commander, having received the order of Knighthood in Muskegon Commandery No. 22, February 12, 1874, and the Council degrees in Manistee Council No. 46, April 28, 1876. He was made a S. P. R. S. in De Witt Clinton Consistory, of Grand Rapids, February 15, 1882, and in which he in 1891 held the office of Illustrious Commander-in-Chief. He was for three years to 1885 Captain General of Manistee Commandery No. 22, and in that year he was elected Eminent Commander, holding that office until 1888, being again elected to that exalted position in 1889. On May 14, 1888, he was elected and installed Grand Warder of the Grand Commandery of the State of Michigan, and in May 1889 was installed Grand Sword Bearer of the Grand Commandery of the order of Knights Templar of Michigan. In May 1895 he was elected Deputy Grand Commander of the order in the State. He is a charter member of Saladin Temple, Nobles of the Mystic Shrine, of Grand Rapids. He is a member of the Board of Trustees of the Michigan Masonic Home Association, for the purpose of building and maintaining a home for indigent masons, their widows and orphans.

Mr. Wheeler is president of the Michigan Salt Association, organized in 1865 for purposes of general interest in the manufacture and sale of salt, and which embraces in its membership nearly all the salt manufacturers of the State, including the St. Clair river, the Saginaw valley, and the east shore of Lake Michigan, the yearly operations aggregating the handling and disposition of nearly 4,000,000 barrels of salt, which finds market all over the continent.

In politics Mr. Wheeler is a Democrat, and although on numerous occasions nominated and urged to accept public office has always declined with the exception of the mayoralty of the city in 1890 and 1892. He was in 1888 nominated by acclamation to the office of State Senator in the convention of the Twenty-eighth Senatorial District, but refused to accept the nomination.

He was married September 20, 1864, to Miss Cora P. Randall of Joliet, Illinois, who died September 9, 1873, leaving two children, Kittie Belle, born June 15, 1865, and Edward Randall, born January 12, 1869. Mr. Wheeler was on February 18, 1875, married to Miss Emma A. Sayre, a descendant of the old and prominent New England family of that name, by whom he has one son, Harold, born July 23, 1884.

In the history of Mr. Wheeler, the reader may find that of the typical lumberman. But few of those who have built up the immense business by which the forests of Michigan have been made to do indispensable service in the development of the great west, were born with a silver spoon in their mouths. As in his case, a majority of the successful operators in the products of the forests were obliged to struggle with poverty or at least with limited means, yet hardy and courageous, satisfied with a moderate compensation for their labors, and not declining any honest occupation however laborious, the history of the craft as a whole has been one of honest persevering labor, which, perchance, in a larger percentage than can be noted in any other industry of the land, led on to that measure of success and prosperity which is sure to crown the man who pursues the fickle goddess of fortune with honest perseverance, determined on victory. As a class, the lumbermen have been "self-made" men, whose opportunities for education in youth were of the most meagre character, but whose native talents have found development in a sturdy common sense and intelligent manhood, which distinguishes the members of the profession for public spirit and good citizenship.

Delos L. Filer.—Few men have taken a more prominent part of the development of the lumber industry than did Delos L. Filer, who may justly be claimed both by Manistee and Ludington, as one of the foremost citizens for many years of each locality.

Mr. Filer was of Scotch parentage, a native of New York, having been born in Herkimer County, New York, September 27, 1817. His early life was spent in the county of his nativity, where he was engaged in farming, school teaching, and as a merchant and lumberman. In 1838, being of age, he married Miss Sarah A. Paine, who died in the following year, leaving a young daughter who grew to womanhood and married John Vahue. She died of yellow fever in Florida in 1873. In March 1840 he was united to Miss Juliette Golden who bore him three sons and one daughter—E. Golden Filer, Delos W. Filer, both of Manistee, Mary J. Filer, who married A. G. Sexton of Milwaukee, and Frank Filer, who resides at Ludington. Mrs. Filer was a most estimable lady, who died in 1864, beloved and regretted by a large circle of stricken friends. In 1850 Mr. Filer removed to the west and made his home in Racine, where he entered the employ of Filer, Francis & Co., manufacturers and dealers in cigars and tobacco, and was employed on the road through Illinois and Wisconsin in the disposition of their products, and soon after was employed in the lumber office of Roswell Canfield at Racine, Wis. In 1853 he removed to Manistee, where the Canfields had already laid the foundation of the extensive business which has since made their name famous in lumber circles, and entered their employ at a salary of $400 per year. Having at this time a family of four children, he looked outside his meagre salary for means for their support, and utilized his knowledge, to some extent, in the practice of medicine, although his knowledge of medical science was largely intuitive, but, being the only man in several counties who had any knowledge of that profession, he was frequently called upon to go long distances to prescribe for the sick. He also filled the office of county clerk, and soon became recognized as the leading man in the settlement, which has since developed into the city of Manistee. He had now reached middle life, and the chances of making the fortune, which is at some time, the dream of all men, seemed less remote than before, while yet Delos Filer was not a man to be intimidated by the frowns of adverse fortune, and his quick mind was not long in grasping the fact that he had but to seize a proffered opportunity in order to reach the goal of his ambition, and his increasing income and careful savings were invested in pine timber lands, and also were, as the favorable chance presented, invested in land in what is now the thriving city of Manistee. In 1858 or 1859 he, in company with L. G. Smith, purchased a half interest in what was known as the Batchelor mill property, on a portion of which the city of Manistee is now located, together with outlying pine lands. Subsequently he purchased the remainder of this property, the mill connected with which was located where the Dunham House now stands, and was destroyed in July 1865 by a fire which spread from the adjoining forest. In this fire a large quantity of lumber was destroyed, the loss reaching $100,000 with but $11,000 insurance. He now erected a new mill further up the river, and on the banks of Manistee lake, and platted a portion of the land near the old mill, the increase of population seeming to demand it for residence and business purposes. He at this time donated to the city the grounds on which the Court House, the Union School Building, and other public edifices now stand, and it may be remarked in passing, that no claim upon him for assistance in the erection of churches and public edifices ever passed unheeded, or failed to receive liberal aid. He in 1861-2 added the land of the McVicker estate, comprising 248 acres (now in the heart of the city) covering, with his previous purchases, nearly two-thirds of the territory now comprised within the city of Manistee. This property he held until 1866, when he sold out nearly all this interest to M. S. Tyson & Co., and associating with him his sons, E. Golden, and Delos W., organized the firm of D. L. Filer & Sons, and purchased about 2,000 acres of land, three miles south of Manistee, and extending from the mouth of the Little Manistee river nearly to Lake Michigan, and at a point on Manistee lake, a short distance north of the mouth of the Little Manistee, erected a saw mill containing two circular saws, with capacity for cutting fifty thousand feet of lumber in the day of twelve hours, which was then the recognized day of labor. The product of the mill for the year 1867 was 8,500,000 feet. His wife having died two years previous, he on January 26, 1866, married Miss Mary M. Pierce of Ludington, who survives him. To this union was born one daughter, Miss Gracie.

He had during the preceding years purchased considerable quantities of government land upon the Little Manistee river, and foreseeing its future value, increased his holdings as rapidly as he deemed prudent. The great depression in lumber values which had taken place in consequence of the financial depression of 1857, and the slow recovery from which had been checked by the outbreak of the rebellion in 1861, had given place to a constantly stimulated advance in 1863, which, when the firm of D. L. Filer & Sons was organized in 1866, was at the height of its flood-tide, and remained unchecked until the disastrous revulsion of 1873, and during this period the manufacture of the firm kept pace with the constantly enlarging demands of a prosperous and rapidly increasing western country, the Chicago market readily absorbing an ever-increasing production at the various lumber manufacturing sections of Michigan and Wisconsin. The mill when first erected had capacity for the manufacture of about eight million feet per season, but with the addition of improved machinery from time to time as the needs of manufacture stimulated the brains of inventors, the mill of to-day consists of one circular and one band saw, with capacity for cutting fifteen million feet per year of lumber, and thirty millions of shingles.

Few men can be credited with more acumen and foresight in the perception and preparation for the wants of a rapidly increasing west, through the demands which must necessarily be made upon the resources of the forest, and few can claim the possession of a higher degree of public spirit, in a perception of the need and natural resources of the localities with which his lot in life was cast. When he settled in Manistee, it was but a small hamlet on the shores of Lake Michigan. The location chosen by him in 1866 on which to build his mill, was reached by a logging trail from Manistee, which was fully three miles distant, and the trail was through a dense wilderness. Little did he dream of a day when the forests should give place to a populous city, and the logging road be superseded by an electric tram road which should transfer passengers in scarcely more minutes than it formerly took hours, from one point to another. In 1868 Filer township was organized and later Filer City was platted, but still remains under township organization. It was about this time that Mr. Filer purchased the James Ludington interest at Pere Marquette, now Luding-

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ton, Mason county, and leaving the management of the Manistee business to her sons E. Golden and Delos W., he took up his residence in Ludington, and in connection with James Ludington and John Mason Loomis organized the Pere Marquette Lumber Co., and was made president of the same, holding the position of president and general manager up to the time of his decease. At Ludington he became prominently identified with local enterprises as he had previously done in Manistee, and was mayor of the former city in 1876, while at the same time president of the Mason County Agricultural Society. He did much to encourage settlers to take up tillable lands in that section of the State, and virtually formed the Norwalk Colony, a farming and fruit raising community eight miles north of Manistee. He introduced fruit culture, and demonstrated the adaptation of the lake shore section of the State to this now vastly important industry. During his career he was connected with some of the heaviest land deals in the history of the State of Michigan. He during this time was senior partner in the saw mill machinery manufacturing house of Filer & Stowell at Milwaukee, whose various devices for mills have long enjoyed a reputation second to none other of the enterprising concerns which have studied the increasing wants of the saw mill world.

Mr. Filer was recognized as a man strictly honorable in all his dealings with his fellow man, and his advice was sought and appreciated in matters of public moment, being rarely found to be incorrect, hasty or ill-advised. He was a liberal giver to what he believed to be worthy objects, and public spirited in the matter of civic needs. His health failing in the early spring of 1879, he, with his wife and daughter, visited Colorado, hopeful of receiving benefit in that climate. Returning home he essayed to attend to business, but was soon taken worse, and on Saturday, July 26, 1879, he passed away amid the tears of a stricken family and of a community which felt the loss of a good and useful man. His remains were taken to Milwaukee for interment.

The business of the Pere Marquette Lumber Company at Ludington, was for some time after his death, under the general management of his youngest son, Frank Filer. (See Ludington).

E. Golden Filer, eldest son of Delos L. and one of the firm of D. L. Filer & Co., was born in Jefferson County, New York, December 4, 1841, and came west with his parents to Racine, Wisconsin, in 1850, with them removing to Manistee in 1853. His education was mainly obtained in the public schools of Racine, Wisconsin, and at Racine College. Besides this education Mr. Filer came in contact with the world in various phases of its developing history and in his case as in many others, it proved a beneficial and practical supplement to that of the school-house. Added to this was contact with a father endued with more than average common sense, as well as a fair education, and a mother of lovely disposition and well qualified to guide the minds of her children in channels which should develop the best in their nature, and the young man can be said to have been fairly equipped for life's duties, even before his patriotic ardor led him in 1862 to enlist in Company A 20th Michigan Volunteers, spending two years with the army of the Potomac under various generals, in maintaining the integrity of the Union. Honorably discharged in 1864, he returned to Manistee and assisted his father in various departments of his mill and business, until in 1866 the firm of D. L. Filer & Sons was organized, consisting of the father D. L. Filer, and the sons E. Golden Filer and Delos Warren Filer, and having acquired about 2,500 acres of ground at the north end of East lake, about three miles from the present location of the city of Manistee, erected a two circular saw mill, near the mouth of the Little Manistee river, with capacity for cutting fifty thousand feet of lumber per day of twelve hours. The cut of the mill for the following year (1867) was 8,500,000 feet. At this point a portion of the land was platted and the place became known as Filer City, which designation it still holds, while still under township organization and in Filer township, although practically a suburb of Manistee, with which place it is connected by an electric road. The mill erected upon this property in 1866 was provided with a double edger, one saw being fixed and the other movable upon the arbor, and the Filers were the first to introduce this innovation upon the long established custom of using a slide table edger in the mills of this section. It had but a year or two previous been demonstrated that the capacity of a circular saw was limited practically to the amount of lumber which could be properly edged and cared for, and the introduction of the double or gang edger, revolutionized the work of the circular saw mill in that its capacity was co-extensive with that of the saw itself. This machine was crude in its initial introduction and dangerous in its operations, but these difficulties were soon overcome, and the double edger is as much a requisite in a saw mill as is the circular, gang or band. This firm was also the first to introduce the paper friction pulley, their unsatisfactory experience with leather leading their practical minds to try the experiment of building a paper wheel out of the thick material which could be obtained from hat and other paper boxes. The success of the experiment in the greater life of the pulley soon brought paper into universal use for friction pulleys. Always on the outlook for labor-saving devices, they were the first to introduce steam feed into a mill on Manistee lake, and as well the first to use the Rogers log turner or "steam nigger," as it was for a long time known. In 1885 they took out the circular from the mill and put in a band mill, which could as yet be hardly considered a success, although it soon after rapidly superseded circular saws in all parts of the saw mill world and is now in almost universal use. When in 1869 the father, Delos L., became largely interested in the Pere Marquette Lumber Company at Ludington, the Manistee business was turned over to the junior partners, and the successful operations of the subsequent years are to be credited to the judicious management of E. Golden Filer and his brother, Delos W., the former assuming charge of the office work and the latter taking supervision over the mill and the manufacture. The mill has passed through many extensive rebuildings and is to-day one of the best on Manistee lake, its circular and band with shingle machinery, producing an average of 75,000 feet of lumber and 15,000 shingles. daily. Where formerly large quantities of lath were cut from the slabs and waste, the introduction of the manufacture of salt in 1880 created a demand for staves and heading sufficient to care for five hundred barrels of salt, which is their daily output, and in the manufacture of which the offal of the mill is utilized as fuel.

E. Golden Filer, soon after his return from the war, was in 1865 married to Miss Julia, daughter of Alanson Filer of Racine. He is president of the Booming Company, and treasurer of the Manistee and Grand Rapids railroad, director of the First National Bank and also of the Manistee County Savings Bank and in several other institutions, including the Michigan Trust Company of Grand Rapids.

Delos Warren Filer was born in Jefferson County, New York, September 8, 1843, and was educated in the schools of Racine and Milwaukee. His father Delos L. had removed to Racine, Wisconsin, in 1850, where the subject of this sketch completed his education, and when in 1858 his father in connection with L. G. Smith purchased the Batchelor mill, Delos W. became his worthy and able assistant, and so continued until the formation of the firm of D. L. Filer & Sons in 1866, his brother E. Golden and himself being the "Sons" of the firm. When in 1869 the father became largely interested at Ludington and went there to reside, the business at Manistee fell under the management of his two sons, who subsequent to the death of their father in 1879 have continued the firm designation D. L. Filer & Sons. With a constantly expanding business, the demand that in order to meet with the greatest success there must be an appreciation of changing conditions, had been fully realized and acted upon by the sons of the founder of the house, and in the department of the mill and woods Mr. Delos W. Filer has shown himself alive to the demands of the day, in the appreciation of newly invented labor-saving devices, and their introduction, usually before any of his competitors in business awoke to their importance and value. The care of the mill and the manufacture and shipment of lumber supplementing the examination and purchase, and as well, the logging of the pine lands requisite to so extensive operations as those conducted by this firm, demanded no less skill and good judgment than the office work which dealt in the mathematical and financial departments, and in the division of labor which was thus entailed upon the subject of our sketch, and which placed in his hands the mechanical branch of the business, he has proved a worthy coadjutor to his brother and partner E. Golden Filer, of the office department. Like his worthy father and enterprising brother, Mr. Delos W. Filer has shown himself a public-spirited citizen, who has done much to promote the growth and progress of the township and the village which bears the name of Filer City, but which is practically a suburb of Manistee, the firm being rated among the business houses of that city.

In February 1867 he was married to Miss Carrie Paine of Manistee.

Richard G. Peters.—The more prominent among the lumbermen in all sections of the northwest have been noted for their energy and push, and none have more fully demonstrated these admirable qualities than those who for the past half-century have operated in the forests of Michigan, from the time when the stately forests began to be musical with the ring of the woodman's axe, to the day when the mills of many sections began to cease operations, because of the decadence of supply. No more pushing or enterprising lumberman can be named among the thousands of operators of whom this can be said, than Richard G. Peters of Manistee.

Mr. Peters was a native of the state of New York, having been born in Delaware county, July 2, 1832. He was the son of James H. and Susan (Squires) Peters, who at the time of his birth were farmers in that county. Richard inherited his enterprising spirit from his father, who, not content with the profits of his small farm, increased his income by mercantile trading in the products of his neighborhood. The family a few years later removed to Syracuse, New York, where, and later on their removal to Cincinnati, Ohio, they engaged in hotel keeping. About 1847 his mother died, and Richard, now fifteen years of age, went to live with his grandparents at Tully, New York, and for two years divided his time between work upon their farm in the summer, and in completing his education in the country school in the winter. He then for a year was employed by an uncle as gate-keeper upon a toll road, in which employ he had opportunity of studying those varying phases of human nature which in perhaps no other occupation of life so fully develop the native propensities of the average man, and exhibit the chicanery and willingness to defraud, even in the disposition of those who are generally accounted honest men, but who had no compunction of conscience in their endeavor to "cheat the toll gate," and who would lie for a penny. Doubtless this insight into human nature was a valuable education to the young man, who, in later years, was to be brought into intimate contact with so large a number of business men and competitors in business, and taught him to measure men by even the smaller evidences of their duplicity. Rejoining his father in Cincinnati at the age of eighteen years, he fell in with a cousin who resided at Monroe, Michigan, and in 1850 returned with him to his home, working for him upon his farm until late in the fall. Being possessed of a high degree of native talent, and having some knowledge of engineering, he entered the employ of the Michigan Southern Railroad Company, and was soon afterwards given charge of a division of that road, in the capacity of Assistant Civil Engineer, occupying this position for the next four or five years. The growing importance of the lumber interests of the State had attracted his attention, and in 1855 he entered the employ of the late Charles Mears, taking charge of that gentleman's lumber and mill interests at Big Point Au Sable, and remaining with him for the next five years. Having accumulated some money from his savings, he now went to Ludington, and purchasing a small tract of government land, devoted a year to getting out the timber, and realizing the necessity for larger capital in what he had now decided upon as the business of his future life, he accepted a lucrative offer from James Ludington, then an extensive operator at the mouth of the Pere Marquette river (afterwards known as Ludington), to take charge of his mill and lumber operations at that point, and was so occupied for the next two years. In 1866 he became associated with M. S. Tyson and George W. Robinson, both of Milwaukee, in the purchase of the large property of Filer and Tyson at Manistee, the property consisting of a large body of pine lands on the Manistee river, two saw mills at the mouth of the river and a large portion of the site of the city of Manistee, the purchase price being $250,000. This partnership continued but two years, and from that time Mr. Peters has been practically alone in the prosecution of lumber industries of a gigantic nature, and indeed of proportions equalled in extent by few, if any, of the many extensive lumbering operations in the northwest, operations which with increasing resources have given him the name of a "king among lumbermen." That in more recent years temporary embarrassments were met with, which, while for a time threatening the ruin of his business, but which happily have been overcome without leaving a stain upon his character as a man, nor upon his business acumen, does not detract from the admiration which must by all be accorded to his remarkable business talent.

As a purchaser of pine lands, while a close buyer, Mr. Peters has shown his faith in their value by his ever readiness to purchase, from government or from private hands, any desirable selections in which he could see a profit, fully realizing that opportunities for desirable investment in this line were rapidly vanishing.

As a result he became the owner of perhaps a larger quantity of pine stumpage than was held by any individual in the State of Michigan. In 1869 he purchased the large mill property of Wheeler & Hopkins on Manistee lake, which he operated for thirteen years, when it was destroyed by fire. The yearly manufacture of this mill was 12,000,000 feet, it being improved from time to time by the addition of labor-saving devices, which during this period were many, each adding to the economy of manufacture, and enabling him to keep pace with the yearly increase in demand through the rapid growth of the country. On the destruction of the mill, Mr. Peters purchased forty acres of land with the mill hitherto operated by Louis Sands, located on what is now known as the village of Eastlake on the east side of Manistee lake. This mill had been rebuilt and enlarged and a second mill added, and soon after the discovery that Manistee was underlaid by a fifty-foot strata of rock salt, wells were bored to a depth of 2,000 feet and salt blocks with capacity for turning out 1800 barrels of salt daily were erected. Mr. Peters' pay roll at this time included about eight hundred names. In connection with the lumber operations, a railroad into the timber was constructed, which at this time comprises seventy miles of track, and is fully equipped both for logging and general transportation. About the time of the purchase of the Eastlake property, he in connection with Horace Butters, purchased two large bodies of the land grant of the Flint & Pere Marquette railroad, and laid out the town of Tallman, twenty-eight miles south from Manistee on the F. & P. M. road. The two tracts of land were estimated to contain 130,000,000 feet of pine. A mill was erected by Butters and Peters for manufacturing this timber, but after successful operations for four years, it was destroyed by fire and not rebuilt. The firm had previously bought a large mill at Ludington, which was now still further enlarged, and to which a large salt block was added, the plant giving employment to from 300 to 400 men. Included in this property was thirty miles of railroad, this method of logging having by this time become desirable. Mr. Peters was also interested at Chase, Michigan, in the firm of Dunham, Peters & Co., in extensive lumber manufacture. He also had an interest in the Stronach Lumber Co. of Manistee, and the firm of Peters & Morrison controlled 15,000 acres of pine lands on the Menominee river of the Upper Peninsula, and were interested in the large mill of the Interior Lumber Company at Interior, Michigan. In his own name Mr. Peters held fully 150,000 acres of pine timber lands in Michigan and Wisconsin. He was also interested in 100,000 acres of yellow pine lands in Alabama and the Carolinas.

With all these vast interests, Mr. Peters was also a stock holder and president of the Manistee National Bank, and a director in the Fifth National Bank of Grand Rapids. Republican in politics, he is liberal in his views and charitable toward his political opponents. He is a member of the Congregational Society and a liberal donor to all educational and worthy benevolences. He was married in 1858 to Miss Evelyn N. Tibbitts, daughter of a wealthy farmer in Lenawee County. They have no children.

Mrs. Peters was a woman of great force of character, noted for her benevolence, and was a patient and happy sharer in her husband's prosperity, and a wise counsellor in his difficulties and trials, until her lamented decease February 10, 1897.

John Thorson.—Among the prominent lumbermen in the northwest, and one whose general history presents many interesting and unique features, is John Thorson now of Milwaukee, but for many years one of the more prominent among the lumber manufacturers of Manistee, Michigan.

Mr. Thorson was born at Stevenger, Norway, March 20, 1820, the son of Andreas Thorson, who for many years was connected with the Customs service of that country. John attended the public schools of his native land until about fourteen years of age, when he made several voyages to the Mediterranean and Baltic seas and to Antwerp, where, leaving the ship upon which he had been sailing, he shipped on the American ship Plato of Philadelphia, landing in this country in the fall of 1838. Although at this time but eighteen years of age, he soon after shipped on the ship George Washington, bound for Calcutta, and on the return voyage, which was accompanied with extreme hardship, he landed at the island of St. Thomas, whence, after a detention of three months, he made his way back to Philadelphia. Having enough of the sea for the present, he turned his attention to learning the trade of a sail maker and became a proficient in that branch. The sea, however, held great attractions, and having completed his apprenticeship, he obtained the position of a warrant officer as gunner on the revenue cutter Nautilus, Captain Waldon Green, and was stationed on the coast of Florida for the ensuing two years, after which he visited Mobile and New Orleans, but finding nothing in the way of employ to suit his taste, or for following his trade of sail maker, he took a trip up the Mississippi river to the Ohio river, and thence by the Beaver Canal to Cleveland and thence to Buffalo. In the fall of 1843, not finding anything to suit him at Buffalo, he took passage for the young city of Chicago, where his search for work was equally fruitless, and he continued on to Milwaukee where he found employ with Payson & Robb, ship chandlers, in an occupation for which his previous experience had well fitted him. Here he remained until 1847 when, in company with G. D. Morris, he formed the firm of G. D. Morris & Co. and purchased the business of his former employers, and from 1847 to 1868 the firm carried on the business of ship chandlery. In this latter year Mr. Thorson drew out of the firm and purchased an interest with Charles Paggeot who had just completed the erection of a small steam saw mill at the village of Stronach on Manistee lake, the mill containing two circular saws with a double edger. There had been some mistake made in the construction of the mill, and it took about two years to place it in satisfactory running order, by which time its manufacture was brought up to from seventy-five to eighty thousand feet of lumber per day. The partnership was continued until 1880, when the business was incorporated as the Stronach Lumber Company, of which John Thorson was president, Charles Paggeot treasurer and Peter Wilbes secretary. This company continued until 1892, when the business was sold to Otto and Gustave Kitzinger, who organized the Union Lumber and Salt Company, the original company having, about 1881, erected a salt block in connection with the mill, with capacity for the manufacture of 500 barrels of salt daily. In the organization of the new company Mr. Thorson retained an interest which he still holds.

On New Year's eve, 1859, Mr. Thorson took a bride in the person of Miss Sarah Kildahl of Christiansend, Norway, who has borne him three daughters and two sons, one of the latter, W. H. Thorson, being a prominent lumberman at Manistee. The daughters are all married. Mr. Thorson has for many years been a resident of Milwaukee, where he is numbered among the most influential and highly esteemed of her citizens.

Louis Sands.—Few men have borne a more conspicuous part in the development of the lumber business of western Michigan, than Louis Sands of Manistee. Mr. Sands was born at Albro-Sodermanland, Sweden, July 6, 1826. His parents were farmers, and as the boy advanced in years his services were demanded in their assistance. In the lack of public schools, his facilities for obtaining an education were of the most limited nature, and the development of his mind, which has since marked the intelligent man of business, is the best evidence of the native talent with which nature has endowed him.

In 1853 Mr. Sands came to America, landing at Boston after a seven weeks' voyage on a vessel laden with Swedish iron, at that time in great request in this country, and ready to turn his hand to any useful occupation, found employment in the opening of oysters at 87½ cents a day wages. After a couple of weeks at this work, he decided to go further west, and with Chicago as his objective point, he travelled by the Erie canal to Buffalo and steamboat to Chicago, where for a couple of weeks he found employment in the building of the docks of the Illinois Central Railroad, on wages of nine shillings per day. Late in the fall of that year, he with two comrades took passage in a schooner to Manistee, where he found employment with some jobbers who were getting out logs for the Canfields, on the south branch of the Manistee river, assisting them in getting out square timber, well into the next summer. On settling with his employers he found that they had already overdrawn their account, and had nothing coming to them with which to pay him, and his time was lost. With the experience thus gained, he in 1856 secured a logging contract from Mr. Canfield and purchasing a team, he, with a small gang of men, commenced operations, which, being successful, gradually extended during subsequent years, until in 1870 he undertook the building of a mill containing a circular saw, and with a capacity for cutting about 30,000 feet per day, operated it until 1879, having meantime cleared up forty acres of land and erected such buildings as were requisite in his milling and farming operations. In the latter year, he sold the property to R. G. Peters for $40,000, and it has since been the site of that gentleman's extended operations. Previous to this sale, Mr. Sands, in 1878, purchased from Tyson, Sweet & Co. the property which he has since occupied, which includes a mile of frontage on the Manistee lake and river, together with fine lands and city property, calling for an investment of no less than $250,000. The mills at the time of his purchase were equipped with two circulars and two gangs, and with capacity for the manufacture of 200,000 feet per day, were considered the "star" mills of the west shore. In 1889 one circular was discarded, to be replaced by a band mill. In 1891 a second mill which contained two circulars, was destroyed by fire and rebuilt as a shingle mill, containing Perkins and Challoner machines with capacity for sawing 400,000 shingles per day, and in connection with it, a salt block was erected, with capacity for the manufacture of 400 barrels of salt daily, being later increased to a capacity of 1,000 barrels. The lumber manufacture of Mr. Sands has for many years been in the neighborhood of 25,000,000 to 30,000,000 feet of lumber and 30,000,000 shingles per season.

In the cutting of his timber, Mr. Sands has always been conservative, and was among the first manufacturers to adopt the principle of close cutting, and clearing off his timber lands of all valuable timber, whether pine, hemlock or hardwood, quickly appreciating the growing importance of the hitherto neglected varieties. In connection with his business, Mr. Sands early realized the importance of owning his own vessels for the transportation of his products to a market, and in 1873 purchased the schooner Arendal, which he still has in commission, and during the same year built the Isabella Sands, of 350,000 feet carriage capacity and later added the schooner A. W. Luckey, 360,000, and the steam barge Maggie Marshall, of 400,000 feet capacity. In 1883, Mr. Sands erected the gas works which supplied Manistee with light, until the erection by him in 1891 of an electric light (Brush) system, which includes 100 arc lights for the streets, 250 arc lights for commercial purposes, and a large number of incandescent lights for business houses and residences, the plant comprising one dynamo of 5,000 lamp capacity, and one of 3,000.

Appreciating the growing scarcity of timber in the state, Mr. Sands has accumulated pine timber holdings sufficient to keep his mills employed at an average of 25,000,000 feet yearly for ten or twelve years to come, while recent purchases include a tract containing no less than 40,000,000 feet of hardwood as a supplement to the pine supply.

In 1889, Mr. Sands bought all the lands owned by the Grand Rapids & Indiana Railroad Co., in Missaukee County, Michigan, including about one hundred million feet of timber, mostly pine, and in 1890 erected at Lake City, Michigan, a large saw mill, modern in all its appointments, with a daily capacity of one hundred thousand feet. He constructed in connection with this mill about eleven miles of 36-inch gauge railroad, using 30 pound steel rails, and equipped it with two locomotives, logging cars, etc. Operations at this point were finished in 1897, the entire output being handled by railroad and marketed in Southern Michigan, Indiana, Ohio and Pennsylvania. When the cut at Lake City was finished, the saw and planing mills were taken down and shipped to Manistee, and were later erected on what is known as the Reitz property, which Mr. Sands purchased in 1897. A new salt well has recently been put down on this property, and when the mill, machine shop, and other improvements now under way are completed, it will be one of the finest plants in Northern Michigan. Mr. Sands is at present operating the old Reitz mill which he bought with the property, but expects to have the new mill ready for the sawing season of 1898, which will give him a daily capacity in the two plants of about 200,000 feet of lumber, 400,000 to 500,000 shingles and 2,000 barrels of salt. Mr. Sands also owns and operates a well-equipped logging road in Kalkaska county and is now (1897) building about twenty-two miles of new road in the same county, which will reach a large body of valuable timber hitherto inaccessible. He employs from 700 to 800 men the year round, in his mills and logging and shipping operations at various points. Mr. Sands has recently erected a fine business office, modern in all its appointments, from which he directs and manages his entire business.

Mr. Sands has been married twice; in 1857 to Miss Caroline Richards, who died in 1863 leaving one son, Charles Sands, now of Grand Rapids, Michigan; in 1865 he married Miss Isabella Marshall of Benzonia, by whom he has one son and four daughters.

The family are Congregationalists and take an active part in church life and duties. In politics, Mr. Sands is a Republican, but has never taken an active part in political affairs.

The history of Mr. Sands presents a vivid picture of the value to our nation of the intelligent emigrant from foreign lands, who, adapting himself to the customs of the land in which he has cast his lot, speedily advances from poverty to a position of affluence and of influence. Beginning as a laborer, with but meager compensation, not discouraged by the loss of his first years' earnings, he with frugality and economy, and with enlarging business perceptions, has attained the highest round of the ladder of financial success, while enjoying the respect and confidence of the community in which that success and respect have been established. To such men as Louis Sands a hospitable welcome to our shores is gladly extended.

Edward Buckley.—Prominent among the lumbermen of Manistee, Mich., is Edward Buckley, who was born at Biddleford, Devonshire, England, August 4, 1842. His father was one of the sturdy yeomanry of the land, holding a life interest in a farm, which at his death passed to others. In 1846 his parents concluded to remove to this continent, and settled for a time at Montreal, but the father Robert S. dying soon after, Edward's mother took her little family, consisting of the one son and one daughter two years younger than Edward, to Toronto, where they remained for several years. Edward attended the common schools at Montreal and Toronto until about 1855, when his mother removed to Sheboygan, Wisconsin, at which place he attended school until 1858, when the family removed to Milwaukee, and Edward enjoyed the advantages of a course in a commercial college. He then learned the tinsmith's trade, and was thus engaged when the call to arms led the now sturdy young American to enlist on the 5th of August, 1862, in the 24th Wisconsin Infantry, going to the front with Buell's Army of the Cumberland, and participating in various engagements, carrying a musket until the close of the war. He was in one of the most noted fighting divisions, including Sheridan's at Perryville, Stone River, Chickamauga, Mission Ridge and all the battles of the Atlanta campaign, and at Franklin, finishing up with the battle at Nashville. Receiving an honorable discharge in August 1865, he returned north with his regiment and reaching Milwaukee, resumed his trade, in the employ of the Chicago, Milwaukee & St. Paul Railroad Company, with whom he remained until March 1867, when he entered into an engagement with a hardware firm at Manistee, and for about six months took charge of their tinshop, after which, forming a business arrangement with Henry V. Marchant of Milwaukee, under the firm name of Edward Buckley & Co., he opened a hardware store and tinsmith business for himself. With varying experience of success, realizing the ups and downs of business, he continued until 1873, and in 1874, having closed out his hardware business, he entered into a general land and logging business in connection with Mr. Ruggles, and continued in this line for several years. In 1880 Mr. Buckley formed a copartnership with William Douglas, and the firm of Buckley & Douglas began a general logging and lumber business, procuring the manufacture of their logs at various mills, sometimes as many as four or five being engaged in sawing the large quantity of logs, sometimes reaching as high as 70,000,000 feet per year, which were put in or purchased by the firm.

In 1886 the firm purchased the extensive pine land holdings of Ruddock & Nuttall, together with the mill property for many years operated by that firm on Manistee lake. The purchase was made late in the fall, and by the following spring the mill was practically rebuilt at an expense of $115,000 before a board was sawed, and now constituted probably the finest "bill" mill in the State, having an 80-foot carriage, the firm making a specialty of the manufacture of long timber for which, for six or eight years, they catered to an English trade, shipping to that country large quantities of timber together with deals, to the extent of from two to four million feet yearly, and this trade has been continued to some extent to the present time. Lumbering largely by railroad, the mill was kept in operation night and day through summer and winter, averaging a cut of not far from 50,000,000 feet of logs per annum. In this interest the company built a standard gauge railroad reaching Traverse City, a distance of 70 miles, and with various branches into the forest, maintaining a total length of 120 miles, over which a vast amount of log transportation has been and still is maintained. Of this road Mr. Buckley is president and general manager, Mr. Douglas vice-president and general superintendent; the road and its branches giving access to 85,000 acres of timber controlled by the Buckley & Douglas Lumber Company, of which Mr. Buckley is president and treasurer. During the fall and winter of 1896-7 the company erected the most extensive salt works which are to be found in the State, with capacity for the manufacture of 2,500 barrels of salt daily, the brine being obtained from five wells sunk to a depth of 2,000 feet into the salt-bearing strata of rock.

In the conduct of its vast operations, and with lively appreciation of the rapid declension of the pine supply, Mr. Buckley and his company early adopted the policy of purchasing an outside log supply, saving so far as possible their own timber to a later day, and by continuing this policy will be able to keep their mill supplied for many years with an excellent grade of pine timber, while the rapidly increasing consumption of hardwoods and hemlock timber gives them additional resources, which but a few years since were not taken into consideration, but which now constitute an important factor with the mills of all sections of the State, and is of the greatest account in those sections which have salt manufacture in connection with the mills, in adding an important and needful supply of fuel to the nearly exhausted resources of pine offal hitherto relied upon.

Mr. Buckley was married in 1869 to Miss Mary D. Ruggles (daughter of David D. Ruggles of Maine) who died in 1885 leaving no issue. In March, 1894, he married Miss Jounil Sloan of Thomasville, Georgia, by whom he had one daughter.

Although a Republican in political faith and identified with the work of the party in various capacities, he has always declined public offices, being too greatly absorbed in practical pursuits, although always forward in promoting the interests of the city of Manistee and its surrounding country. He is an active and prominent member of the masonic fraternity, and has received all the degrees to the 32d, and has held the offices in lodges, and chapter, and for two years presided as Eminent Commander of Manistee Commandery No. 32 K. T.

As will be seen from the record above, Mr. Buckley is pre-eminently a self-made man, having attained his present prominence as a merchant and citizen, by his own personal efforts,unaided in the beginning by the advantages of inherited wealth, but having an enviable capital in the industry, perseverance and integrity of character, which marks him as a leading and honored citizen of Manistee and a member of one of the largest of its lumber manufacturing companies.

R. R. Blacker has for thirty years been one of the leading and prominent lumbermen of Manistee. Born at Brantford, Canada, October 31, 1845, he was educated at the excellent public schools of that city. Leaving home at the age of nineteen years, he two years later, in 1866, became a resident of Manistee, where for several years he followed the occupation of a lumber inspector, becoming thoroughly acquainted with all the details of the lumber business. In 1875 he formed a partnership with R. G. Peters, and under the name of R. R. Blacker & Co., erected a shingle mill with a capacity for the manufacture of 300,000 shingles daily. In 1879 he entered into partnership with E. T. Davies and Patrick Noud, under the firm name of Davies, Blacker & Co., and built a saw and shingle mill with a manufacturing capacity of 100,000 feet of lumber and 500,000 shingles per day, and in 1887 added a salt block with capacity for the manufacture of 1,200 barrels of salt daily. This business was later incorporated as the State Lumber Company, of which Mr. Blacker was elected secretary, treasurer and general manager, Patrick Noud being elected president. Mr. Blacker is also a director in the Eureka Lumber Company, whose annual cut is 25,000,000 feet. The cut of R. R. Blacker & Co. in 1880 was reported at 80,000,000 shingles, and that of Davies, Blacker & Co. in the same year was 15,000,000 feet of lumber, while the report of 1890 gave the State Lumber Company a cut of 16,000,000 feet of lumber, and 30,000,000 shingles. These figures, which have since been fully maintained and increased, give a fair idea of the extent of the operations which have been conducted from year to year, principally under the direction of Mr. Blacker's guiding mind. Mr. Blacker has also been prominent in the development of the business and political interests of the city of Manistee, and has been prominent in the political interests of the State of Michigan, having in 1892 been elected to the most honorable position of Secretary of State.

R R Blacker

He is a director in the First National Bank of Manistee and of the Manistee County Savings Bank; he is also a director in the East Lake & Filer City Electric railroad, which connects the east and west shores of the Manistee lake, covering the principal streets of the city; he is a director in the Manistee Water Works Co., and the A. H. Lyman Wholesale Drug Company. The respect which is felt for Mr. Blacker in the community in which he is best known, is shown in his election to the office of alderman in 1882, and to that of mayor of the city for four terms, viz.: 1888, 1889, 1895, 1896. Prominent in the councils of the Democratic party, the interests of which he has done much to promote, he was elected delegate to the Democratic National Convention of 1884; was alternate delegate at large to the national convention of 1892; was elected Secretary of State in the same year, winning laurels in the discharge of the duties of that highly honorable and responsible position. In 1896 Mr. Blacker was elected delegate at large to the Democratic National Convention at Chicago. While the enumeration of the several political honors which have been bestowed upon Mr. Blacker may be thought by some to be foreign to the subject of a lumber history, it is but an illustration of the active part which the lumbermen of the northwest have exercised in moulding the destinies of the nation, it being an indisputable fact that no class of men have entertained more enlarged and patriotic views upon local, State or National questions. The very nature of the business, bringing men into intimate association with the broad forests, and into communication with the citizens of every portion of the land, could not fail to exert a broadening view, and a patriotic interest in all questions relating to the prosperity of the country, Mr. Blacker's personal history presenting an example worthy the emulation of the rising generation.

Ernest Nelson Salling is one of the most successful lumbermen of Michigan, in which connection his name is well known all over the State. He was born in Viborg, Denmark, March 15, 1843, of which place his father, Christian A. Salling, was a well known contractor, and was one of nine children born to his parents, of whom three were sons and Ernest, the youngest of the family. The maiden name of his mother was Elsie C. Dyerburg, who died in 1880, but his father lived to the advanced age of eighty-nine years. Ernest N. was an attendant of the public schools and at the age of fourteen began clerking in a store belonging to an elder brother, but in 1862 he decided to try his fortune in the United States. He arrived in this country in May of that year, and soon made his way to Chicago, where for nine months he found employment as a clerk in a retail dry goods store. From this city he went to Detroit, but soon after left for Manistee where he arrived April 3, 1863; but little did the poor Danish boy of twenty years of age dream that here would be his home for many years and that by simple force of character and native ability he would amass a fortune and establish for himself an honorable and enviable social and business record, but such has been the case. He first secured employment with Michael Engleman as a laborer in a saw mill, but a few months later he became a clerk in Mr. Engleman's store and the following spring he was made outside foreman, in which capacity he served for about two years. Up to 1868 he superintended the lumber camps in the winter and acted as foreman of Mr. Engleman's mill in summer. For three subsequent years he had charge of the Engleman vessel property which consisted of five passenger and freight vessels. In 1867, with R. Hanson, he became interested in buying and selling pine lands.

In 1871 Mr. Salling and Mr. Engleman purchased the Waterman & Wing saw mill and began putting on the market their manufactured product. The following year Mr. S. Babcock became a member of the firm and they opened yards at Milwaukee and Chicago. In 1879 Mr. Salling withdrew from this firm and made his mother country and continental Europe a visit, and upon his return to Manistee he formed a partnership with R. Hanson, Nels Michelson and M. Engleman to do a general lumber manufacturing and logging business under the name of Salling, Hanson & Co. Mr. Salling owns pine land interests in Crawford, Kalkaska, Montmorency and Presque Isle counties, also in Manistee, Mason, Lake and other counties in Michigan and in the state of Washington. Although he was reared in the Lutheran faith he is now a member of the Congregational church. October 25, 1867, he wedded Marion L., daughter of William Johnson, a well known attorney of Mackinac Island, and to them five children have been born: Ernest J., Susie Elsie, Lillias Nellie, Jennie Marion and Olga Andretta. Mrs. Salling died August 26, 1882, and April 2, 1884, Mr. Salling married Lotta A., daughter of Abram Wheeler, well known in Hudson, New York, and Joliet, Illinois. He is a Republican in politics, but has never been an official aspirant, and socially belongs to the masonic order, in which he has taken the Knight Templar and Scottish Rites degrees.

Hon. James Dempsey.—While the hardy sons of the State of Maine, and their co-laborers of the primitive days of the Alleghenies, have sent many worthy representative lumbermen into the forests of Michigan, it is doubtful if they have surpassed in the development and the spirit of enterprise those sons of Erin, who in so great numbers have been found not only among the self-made, but most useful and most successful of our lumber manufacturers and woodsmen. Among the more prominent of these and one who is recognized as such by all who know him, and are cognizant of his life's history, must be named the Hon. James Dempsey of Manistee, who was born near the town of Roscommon, in Roscommon County, Ireland, April 10, 1832. His father was a farmer who emigrated to this country in 1847, settling at Scranton, Luzerne County, Pennsylvania, where he died in 1857 at the ripe age of fifty-nine years. His first wife, the mother of James, was Mary Ward, who died while James was but a child, leaving two sons and two daughters, James being the second son. Coming to this country when he was but fifteen years of age, James for two years resided with an uncle at what was then called Hyde Park, which has since become a portion of the town of Scranton, Penn. Later he lived for four years with Judge Nathaniel B. Eldred in Bethany, Wayne county, Penn. In August 1854 James went to Manistee, and in the winter following went to the woods in the logging camps of the Canfield Brothers, being again employed by that firm in 1855 and placed in charge of one of their camps, continuing for the next year in the same capacity in winter, and in delivering logs at the mill booms in summer. In 1869 he entered into partnership with A. E. Cartier, later of Ludington, and the firm of Dempsey & Cartier took the contract for driving, booming and assorting the logs of the Manistee river, which at that time aggregated about 100,000,000 feet per year, Mr. Dempsey still continuing in charge of the Canfield logging camps during the winter of 1869-70 and 1870-71. In 1873 Dempsey and Cartier purchased the mill property on Manistee lake, known as the Green & Milno property, and engaged in the manufacture of lumber, the mill as improvements were introduced for the more economical manufacture of lumber being improved and remodeled from time to time to keep pace with the increasing demand of the market. In 1883 the partnership was changed to an incorporated company known as the Manistee Lumber Company, of which Mr. Dempsey was made president, Mr. Cartier and William Wente being the other two stock holders. With the later improvements in machinery the mill in 1896 rated in capacity at one hundred thousand feet per day of lumber and a large output of shingles. The company has acquired a large body of pine lands in Kalkaska county and on the Manistee river at various points, and own a logging railroad fourteen miles in length over which their logs are hauled to the Manistee river. In 1888 the State Lumber Company was formed to operate the mill plant, previously known as the Davies & Blacker mill, the Manistee Lumber Company owning one third of the stock, Mr. Dempsey representing that interest by election to the vice-presidency, which he still holds. Previous to this, in 1880, Mr. Dempsey formed a partnership with the late John Brown of Big Rapids, and commenced the erection of a mill on the east shore of Manistee lake. Mr. Brown died before the mill was completed and his interest was purchased by Mr. Dempsey and E. B. Simpson of Milwaukee, the mill being subsequently finished and operated by the firm of Dempsey, Simpson & Co. until 1887 when it was destroyed by fire and not rebuilt. In the year 1880 also, Mr. Dempsey organized the Dempsey Tug Line which he owned and operated until 1887 when he disposed of it.

In addition to his large holdings of pine lands in Michigan, Mr. Dempsey owns about ten thousand acres of the excellent long leaf yellow pine timber in the Pearl river section of Mississippi.

An active member of the Democratic party, Mr. Dempsey was the second postmaster of Manistee, being appointed in 1857 and serving to the close of the administration of President Buchanan. At this time the post-office was kept wherever the postmaster happened to be, as the population was small, a weekly mail being found sufficient for the wants of the community. He was again appointed in 1886 under the first administration of President Cleveland and by this time the population had increased to the demand for daily mails, and the office was one of importance. He has served one term as mayor of the city, his administration being of so admirable a character as to lead to an urgent desire on the part of the citizens for his re-election, but having little taste for public or political life he could not be induced to accept a second term, while withal continuing to exercise a wide influence in the ranks of the local democracy and laboring earnestly to further its principles.

He was married June 30, 1861, to Miss Mary Mullen, daughter of Michael Mullen of Racine, Wisconsin. They have been the happy parents of twelve children, viz.: Thomas L. born April 29, 1862; Mary Helen, August 21, 1863; Emily Margaret, May 30, 1865; James Ward, February 14, 1867; Henriette, August 20, 1868; Cecilia Rose, May 1, 1870; Estella Josephine, July 17, 1872; Louis C., May 28, 1874; John Joseph, March 2, 1876; Frank Michael, July 14, 1878; Neale, August 10, 1880; Walter M., December 7, 1883. Of these the last named died September 20, 1886. Miss Mary the eldest daughter was married October 24, 1888, to Mr. John M. Claney of Racine, Wisconsin.

Mr. Dempsey with his family are members of the Roman Catholic church and he has through life been governed by the high standard of principles which form the teaching of that faith, and which have developed in his life that regard for the interests of his fellow man, which mark the liberal giver, and faithful citizen.

Coming to Manistee with no capital but an indomitable will, earnest purpose, and unflinching integrity, combined with industry and an interest in the business of his employers which they were not slow to appreciate and to reward by advancement to more responsible and lucrative positions, Mr. Dempsey worked his way to wealth and honor, and stands to-day an example worthy the emulation of all young men who seek success in life and may invariably find it in paths of diligence, economy, and perseverance in any honorable calling.

A. R. Ferguson.—In the distribution of the vast volume of lumber manufactured in the northwest, which finds its way to the markets of the remotest corners of not only our own land, but of foreign nations, the commission dealers located at leading manufacturing points, form a most important factor. The dealer at a distance cannot always find it convenient to personally visit the manufacturing point and make his selection of desirable stock, nor will the extent of his business ordinarily warrant the maintenance of an agent giving exclusive attention to his individual business, but finds in the employment of a reliable commission dealer who is a competent lumberman and a reliable man, that his interests are as thoroughly subserved, and in many cases more so. Such an agent of unimpeachable character and qualification, resident in a manufacturing section and keeping himself thoroughly acquainted with the character of the stock manufactured at various mills, is in a position to secure for his principal such desirable stocks as may from time to time be available, and to take advantage of such opportunities as may from time to time be presented. Such commission purchasing agents may be found in each of the leading markets, and a large proportion of the purchases by distant dealers from the manufacturers, are made through their agency, while the business has for many years been an important element in the lumber business of the northwest. Among this class of dealers may be found A. R. Ferguson of Manistee, who was born at Bathurst, New Brunswick, in 1850, being the son of John Ferguson, a Scotchman, who settled in New Brunswick in 1832, where he married Miss Mary Munro, a native of Bathurst, but of Scotch parentage. John Ferguson was engaged for many years in the lumber and timber business, being a member of the firm of Ferguson, Rankin & Co., a branch of the well-known house of Gilmour & Co. of Liverpool and London, England, and Glasgow, Scotland. He was a member of the Legislative Council of New Brunswick and on the confederation of the provinces, was appointed to a seat in the Canadian Senate, which he held until his death. The subject of this sketch was given the advantages of the public schools of Bathurst and Montreal, completing his studies at the University of New Brunswick at Fredericton, where he graduated in 1869. He at once entered the employ of Ferguson, Rankin & Co., learning the lumber business in all its details from stump to saw and thence to market, visiting England, Ireland and Scotland, to learn the wants of the customers in those sections from which the larger part of the trade was expected. He was soon after admitted to a partnership in the house and so continued until about 1878, when trade falling off considerably, he severed his connection with the firm and came west in search of newer fields. In 1879 he reached Manistee and entered the employ of M. Engleman, from whom he took the job of running the mill at night, and later was for two years superintendent of the business and mills of S. Babcock. About 1882 he embarked in the lumber commission branch, in which he has acquired a large clientage. Mr. Ferguson was married in 1874 to Miss Mary L. Smith of St. John's, New Brunswick, who died at Manistee in 1894, leaving a daughter, Miss Madeline Louise, who is now completing her education at Kenosha, Wisconsin. Mr. Ferguson is a Democrat in politics, and a member of the masonic bodies. His social qualities are of a high order. His knowledge of local and foreign markets in lumber and timber has made him an authority upon the customs and requirements of foreign purchasers, so that he has been enabled to negotiate many transactions with trans-Atlantic dealers. He is recognized as a thoroughly practical and efficient lumberman, and possesses the confidence and esteem of all who have during so many years had dealings with him.

William E. Sawyer.—One of the most important adjuncts of the lumber business, is the science of inspection, and to its prosecution has been called talents of no mean order. It is the duty of an inspector to stand as a middleman between the seller and the buyer, and in his determination of the quality and quantity of a given lot of lumber, depends the financial interests of the two parties interested. It is essential therefore that an inspector be a good judge of lumber, in its classification into grades, and that he should be an impartial arbiter of the interests of both parties.

William E. Sawyer was born at Watertown, New York, in 1839. His father died when he was but six years old, and soon after, his mother removed to Chicago, where she subsequently became the wife of Ira Colborne, one of the older residents of that city. William received his education in the Dearborn School on East Madison street, and when but a lad, lived with an uncle at Elk Grove, working upon the farm in summer and attending school in winter. About 1852-3 he entered the employ of "Long" John Wentworth, then editor of The Democrat, working in his office, and in carrying papers, the city not being at that time overrun with newsboys, any more than it was with postal delivery clerks. He had as a companion in this business Oliver Horton, now a judge of the circuit court of Cook county, Illinois. He shortly after entered the employ of R. K. Bickford, then as later, one of the leading lumber inspectors of the Chicago market, and served as tally boy—and this was his induction into the business which subsequently became his life's occupation. In May, 1861, he enlisted as a volunteer in the 19th Illinois Infantry under the command of Col. J. B. Turchin, and accompanied his regiment to the front in a Missouri campaign under General Prentiss and with the army of the Tennessee under Gen. Mitchel. Just previous to the battle of Stone River, he was taken sick, and after spending some time in the hospital, received an honorable discharge, being deemed unfitted for further active service. Returning to Chicago, he entered the employ of Inspectors Fish (Peter) and Johnson, with whom he remained until 1878, when he went to Manistee and formed a partnership with R. R. Blacker in the business of lumber inspection, and the connection continued for four years. In 1882 he purchased Mr. Blacker's interest and formed the firm of W. E. Sawyer & Co., inspector and dealer in lumber, logs, and pine lands. Mr. Sawyer is a Democrat rooted and grounded in the faith, nevertheless so highly does he stand in the community that he now fills the office of alderman in the City Council, as the representative of a strong Republican ward, which gave a large majority for the man, regardless of politics. He is a member of Manistee Lodge No. 250, Benevolent and Protective Order of Elks, and is Past Chancellor of Manistee Lodge No. 99 Knights of Pythias.

William Wente, secretary and treasurer of the Manistee Lumber Co., was born at Hanover, Germany, in 1848.

As his parents the same year crossed the ocean and took up their residence in America, it can be said that Mr. Wente comes as near to being a native of America as he well could be. The family settled in Milwaukee, where the subject of our sketch attended the common school until the age of fourteen years, when he took a clerkship in a wholesale notion store, and spent his evenings in the further pursuit of knowledge in a commercial college. After three years in the notion trade, he in 1865 went to Manistee, where he was employed as bookkeeper by Filer & Tyson, and later by the firm of Mark S. Tyson & Co., Tyson & Robinson, and Tyson, Sweet & Co. In 1872 he went with George W. Robinson and others to Pensacola, Florida, taking charge of the books of the firm, which was operating at that place, in the manufacture of long leaf yellow pine for South America, West Indian, English and New York markets, the present enlarged production and consumption of southern pine in the north and west not having as yet developed, although the southern timber was already attracting increased attention. In 1875 Mr. Wente returned to Manistee and was for about a year in the employ of C. F. Ruggles, and another year with Cushman, Calkins & Co., both houses at that time being well known to the lumbermen of the northwest. In the spring of 1877 he was placed in charge of the books of Dempsey, Cartier & Co. and continued in that capacity until 1882, when the partnership was changed to an incorporation known as the Manistee Lumber Co., and he was elected secretary and treasurer, positions he has continued to fill until the present time. Upon the organization and incorporation of the State Lumber Company in 1888, the Manistee Lumber Company became owner of one-third of the capital stock. Mr. Wente is also secretary and treasurer of the Eureka Lumber Company, an incorporation organized in 1890 out of the assets of the Manistee Salt & Lumber Company, which had gone to the wall shortly before, and which had been bought up by the Manistee Lumber Co. and the State Lumber Co. That Mr. Wente has been an important factor in the lumber business of Manistee, with his thirty years of connection, both as an employe and an employer, is readily apparent. He is a Republican in politics, while liberal in his views and tolerant of the opinions of those who differ with him. He has served several terms as an alderman of the city, and is at the present time a member of the school board, offices which have been thrust upon him, and unwillingly accepted at the demand of a constituency who recognized the practical and valuable character of the service which he could render.

In 1870 Mr. Wente was married to Miss Henriette E. Campbell of Manistee, who died in 1888, leaving as issue one son and four daughters, all of whom are living. In 1889 he was married to Mrs. Ella T. Russell of Manistee, by whom he has no issue.

He is a member of Manistee Lodge No. 228, F. & A. M., of Manistee, Chapter No. 65, R. A. M., and of Manistee Commandery No. 32, Knights Templar.

CHAPTER XVII.

GRAND TRAVERSE COUNTY.—EARLY SETTLEMENT.—HANNAH, LAY & CO.

IN 1848 Capt. Harry Boardman of Naperville, Ill., built a small water power saw mill at Traverse City with capacity for cutting two to three thousand feet of lumber per day of twelve hours. This mill was at first confined (as was the case with a majority of the mills of the State in the early day) to cutting the timber in its immediate vicinity. In 1851 this mill was purchased by A. Tracy Lay and Perry Hannah, who in the previous year had established a lumber business at Chicago, and who having satisfied themselves of ample timber resources up the river speedily erected a steam saw mill with two mulay saws and a siding mill, with capacity for cutting 15,000 feet per day of twelve hours (this being the regulation saw mill day until a comparatively recent period.) In 1857 the firm erected a second mill, with two large circulars, which was remodeled a few years later by removing one of the circulars and substituting a pony gang. About 1868 they erected a mill at Long Lake, seven miles from Traverse City, in which they placed a large circular and a gang; the lumber from this mill was allowed to accumulate until winter, when it was teamed to Traverse City. About 1876 a planing mill, shingle mill and dry kilns were added to the plant. The policy of this firm (as with all extensive lumbermen) was to accumulate large bodies of timber land upon the streams flowing into the bay, and between 50,000 and 60,000 acres of land were from first to last secured. In 1889 the firm wound up its lumber operations, having since 1851 cut an aggregate of not far from 1,000,000,000 feet of timber, or an average of 25,000,000 feet per year, and in the wind up sold a quantity estimated at 250,000,000 feet of standing timber to John Torrent of Muskegon. As this estimate was found to have been based upon examinations made many years before, in which no small timber was included nor growth taken into consideration, it is not strange that it should have been found to overrun nearly or quite one hundred per cent in its manipulation by its new owner, and we may safely set down the aggregate production of pine from this stream and its branches at one and one-half billion feet. The Traverse City Lumber Co. operating the former mills of Hannah, Lay & Co., reported a cut in 1895 of 25,000,000 feet. Hannah, Lay & Co. were among the first to appreciate the value of the magnificent hardwoods of this section, and among the earliest to realize the value of maple as a flooring, and for several years previous to their discontinuance of manufacture at Traverse, maple had been utilized in their stock. The fact that in later years maple flooring is almost universally used in all buildings of high character is sufficient evidence of the intelligent foresight which led this firm to its manufacture.

In later years the hardwoods of this region are being utilized to a large extent not only in the manufacture of lumber but that of smaller articles, there being at this time a manufactory at Traverse City turning out wooden plates, butter dishes, fruit boxes, etc., etc. The section has proved also of late years one of the best for fruit raising, no less than 15,000 barrels of apples being shipped from there in 1895.

Perry Hannah.—Few names have been more conspicuous among the lumber men of Chicago than that of Perry Hannah of the pioneer firm of Hannah, Lay & Co., a gentleman whose active connection with the Chicago trade dates from 1846. Mr. Hannah was born in Erie Co., Pennsylvania, September 22, 1824. He was the son of Elihu L. Hannah, a native of Connecticut, who married Miss Anna McCann (the mother of Perry), who was a native of Erie county, both being of Scotch descent, though early colonial settlers. Being a farmer and having the misfortune to lose his beloved wife by death in 1827, Mr. Hannah in 1832 removed to Port Huron, Mich., where he continued to reside for over twenty years, after which he removed to St. Clair, Mich., where he died in 1862.

The region was in those days rich with the finest white pine timber ever known in the country, and Mr. Hannah was among the first to enter upon the business of lumbering, which but a few years later became the principal commercial industry of the State, the Black river emptying into the St. Clair at Port Huron, affording a grade of timber of the character which in later years made the name of Cass river synonymous with all that was most desirable in lumbering.

Mr. Hannah's first venture was in the rafting of logs from the wilderness about Port Huron to the centre of then existing civilization, Detroit, where some saw mills were in operation. Perry, who was the second son of the first wife of his father, remained in Erie county until he was thirteen years of age, enjoying the advantages of a common school education; he then went to Michigan and assisted his father in rafting logs during the summer, which had been cut during the previous winter for the firm of White & Coffin of Detroit, one of the earliest manufacturing firms of Michigan. The logs were made into rafts of about one million feet, and floating with the current, were frequently as much as four weeks in their passage down the river and across Lake St. Clair to Detroit. Tow boats were practically unknown in those days, and the drifting current, with a few boards stood on end for a sail when the wind was favorable, was the supplement to the long sweeps or poles with which the course was kept, the shore avoided and the few sailing vessels passed on the right hand or starboard side. Night was the most feasible for starting with a raft, as the winds were usually more favorable to aid the drifting down the river with the current. Perry followed rafting until he was eighteen years of age, when he entered the mercantile employ of John Wells of Port Huron, and for about three years was engaged in the dry goods business. In 1846 he came to Chicago and entered the employ of N. S. Mead & Co., lumbermen, whose yards were located on the corner of South Water and Franklin streets. After two years' service with this firm he entered the employ of Jacob Beidler, remaining for two years, or until May, 1850, when through the aid of Mr. Beidler he commenced business on his own account in connection with A. Tracy Lay, now of Chicago, and James Morgan, of Hyde Park, Ill., forming the firm of Hannah, Lay & Co., of which at a later day William Morgan, now of Los Angeles, California, became a silent partner. The first yard of the firm was located on the corner of Jackson and Canal streets, where they continued business until 1858, when they removed to the corner of Maxwell and Lumber streets, where they continued until their retirement from the yard business in 1887. In 1851, soon after the formation of the firm, pine lands were purchased in the neighborhood of Grand Traverse Bay, Michigan, and mills started on the west arm of the bay, at what has since become known as Traverse City.

There was probably not a half dozen white men within one hundred miles of the spot when the hardy lumbermen with their axes, saws and teams began the work of cutting down the noble pines and of building a saw mill with which to manufacture them into lumber. The mill was like all others of that day, but a small concern as compared with even the small mills of to-day, but the firm manufactured 3,000,000 feet, adding improvements from time to time until the yearly cut reached as high as 20,000,000 feet. In 1887 the mills and timber lands of the concern which had increased to hundreds of thousands of dollars since the first small venture, were sold to John Torrent of Muskegon, the firm retaining their interest in the town site of Traverse City, now numbering 6,000 inhabitants, and as well in their large mercantile establishment, now employing sixty men, and with sales reaching $500,000 annually in a general line of goods. This establishment occupies a floor space of over two acres, in a three-story building of 112 feet by 222 feet, besides several smaller buildings for storage purposes.

The first store of the young firm was in a building 16 by 20 feet, which for many years afforded ample facilities for their trade, which is now conducted on the department principle.

During the period in which the firm was engaged in manufacturing in Traverse City it handled its own product entire at its yards in Chicago. Mr. Hannah and Mr. Lay exchanging positions every six months, the one superintending the manufacture at the mills, the other the sale at the yards, until in 1855 in consequence of Mr. Hannah's superior knowledge of manufacturing, he took up his residence at the mills. At the inception of their Maxwell street yard in 1858 they were laughed at for going so far beyond the limits of settlement. When they disposed of their business in 1887 the trade had gone so far beyond that point that their yard was not in line with current business. They had the advantage in October, 1871, of being south of the devastation caused by Mrs. O'Leary's cow, and their large yard full of choice lumber aided materially in the rebuilding of the city.

The firm has been instrumental in the building up of the beautiful Traverse City, one of the most thriving of the many prosperous cities of Michigan, owning the original site, and retaining so much as has not been disposed of in its development. Its three lines of railroad present a strong contrast to the days when an occasional steamboat or vessel, or in winter, snow-shoes or sled, were the only methods of communication with the world; often has Mr. Hannah spent several days in the journey from his mills at Traverse City to the forks of the Muskegon river, a distance now to be traversed in fewer hours than it then demanded days. Mr. Hannah is president of the Traverse City State Bank, organized during 1892 by his firm, with a capital of $100,000.

Previous to its organization the mercantile firm of Hannah, Lay & Co. had done the banking business of the surrounding country for the forty years of its business career. The firm has been instrumental in forwarding all the improvements and developments of the town, its water works, electric lights, etc. It has a large flouring mill, with capacity of 150 barrels per day, grinding the wheat of a fertile surrounding country. The operations of the firm were for many years confined to the manufacture of white pine lumber, but of late the valuable hardwood timber of this Grand Traverse region has received much attention, and the firm is interested in its manufacture, the principal varieties being maple, ash, elm and beach, with considerable hemlock. This firm was the first to introduce maple flooring to the Chicago market, finding 200,000 feet an ample supply for many years, but with such favor was it received that one Chicago yard now handles 40,000,000 feet annually.

The firm of Hannah, Lay & Co. still consists of the same members as in the years gone by, and owns the entire stock of the elegant Chamber of Commerce buildings, valued at $3,000,000 and located on the corner of LaSalle and Washington streets, Chicago.

Mr. Hannah was married January 1, 1852, to Miss Annie Flinn of New York City; they have three children—Hattie A., wife of J. F. Keeney of Chicago, Julius T., cashier of the bank at Traverse City and manager of his father's affairs in his absence, and Claribel. Mrs. Hannah died in the winter of 1897-8 regretted by a large circle of loving friends to whom by long association she was endeared.

In politics a Republican, Mr. Hannah was a member of the Michigan legislature of 1856, and has held the office of president of the council of Traverse City since its organization, and has been for twenty-seven years a member of its school board.

No man is more highly respected, and none possess a greater influence for good in the circles with which he is called to mingle.

In a consideration of the development of the great Northwest, sight must not be lost of those pioneers who in settling and developing the timbered sections, have thereby made possible the wonderful growth and progress of the prairie states. No firm or individual is perhaps better entitled to credit in this respect than is the house and individual membership of Han-

Perry Hannah

nah, Lay & Co., to whom the peninsula of Michigan is so greatly indebted, and who as pioneers of 1850 have been a potent influence in the settlement of that vast region bordering on Lake Michigan.

Albert Tracy Lay of this firm was born at Batavia, New York, June 18, 1825. His father was a lawyer and represented his district in Congress from 1832 to 1836. Albert was educated at a private school and at the age of sixteen took a clerkship in a country dry goods and general store, which business he followed for eight years. At the age of twenty-four, he in October, 1849, came to Chicago and began preparation to go into the lumber trade, and associated himself with Perry Hannah, a clerk of Jacob Beidler, and James Morgan, an English capitalist, who had settled at Blue Island in 1842, and the firm of Hannah, Lay & Co. was established, and in 1850 opened a yard on the northwest corner of Canal and Jackson streets, where they remained for ten years, being the furthest yard south with the exception of Ferry's storage yard. In 1860 the firm removed to Lumber street, south of Twelfth street, where it remained in the wholesale lumber business until its final withdrawal in 1889.

In 1851 the firm bought a small water saw mill at Grand Traverse, Mich., which had been built in 1848 by Capt. Harry Boardman of Napierville, Ill., and which had a capacity for cutting from two to three thousand feet in a day of twelve hours. The mill was engaged in cutting the timber in the immediate vicinity, but before purchasing the firm assured themselves that there were ample timber resources up the river, and that the river was available for floating logs. They at once proceeded to the erection of a steam saw mill, which contained two mulay saws and an old-fashioned siding mill, which gave them a capacity of about 15,000 feet per day of twelve hours. In 1857 the firm built a second mill containing two circulars, and a few years later remodeled it by removing one circular and substituting a pony gang. About 1868 they built another mill at Long Lake, seven miles from Traverse City, in which they placed a circular and gang. The lumber from this mill was teamed in winter to Traverse City to be shipped the following season. About 1875-6 a planing mill, shingle mill and dry kiln were added to the Traverse City plant. In their early history the firm purchased the Erie Canal boat, Alert, and brought her to Chicago, and after enlarging her by lengthening, called her the "Albert," and painting the name of the firm the whole length of both sides, placed her on the Michigan and Illinois canal, to ply between Chicago and Naples. Owning many water craft during their career, this was the only one which was given the name of either member of the firm. From the purchase of the water mill in 1851 the firm began the accumulation of timber lands, and their holdings from first to last aggregated between 50,000 and 60,000 acres, with a supply of timber which enabled them after operating for over forty years, with a yearly cut averaging probably twenty-five million feet, or an aggregate of 1,000,000,000 feet in the forty years, to dispose of an amount estimated at 250,000,000 feet to John Torrent of Muskegon as a final wind-up in 1889. For many years after the firm began operations in 1851 the country south of Traverse Bay was almost wholly unsettled. Between the mouth of the Muskegon river and Traverse Bay there were three small mills, one at Pere Marquette, one at Hamlin and one at Manistee. In summer the communication was by vessel, in winter by Indian trail and on snow-shoes. In 1853, Mr. Hannah having occasion to go to Chicago, took the latter methods, camping at night in bough houses improvised for the occasion. The same year Mr. Lay went to Washington and secured the establishment of a post route to Croton, in Newaygo county, and another to Manistee and Traverse City, his bid of $400 per year for four years for carrying the weekly mail on the latter route being accepted. The mail was carried on the back of an Indian for several years. This was the first mail route north of Manistee, in fact, there was no settlement north of Traverse except the Ojibaway mission at "Old Mission," on the west shore of East Traverse Bay, and the Mormon settlement on Beaver Island, although an occasional settler was to be encountered in the forest. Immediately on arrival at Traverse City the firm established a small supply store in a log building, but in 1852 erected a frame store which answered all purposes until 1859, when it was enlarged and placed under the control of Smith Barnes, who when it was reorganized as the "Hannah-Lay Mercantile Co." continued in charge and has built up probably the largest mercantile business in northern Michigan. In 1853 Mr. Lay was a candidate for the State Legislature from a district including everything north of Manistee, but was defeated by "King" Strang, who was at the head of the Mormon colony on Beaver Island and controlled too many votes to be overbalanced by the few inhabitants of the main land. In the same year the county of Grand Traverse was organized by Judge Martin (afterward chief justice of the Supreme Court of the State), who coming from Manistee to try a man for the murder of his own child, recognized an escaped criminal among the employes of the firm, and at once took steps to establish a county government of which Mr. Lay was made deputy sheriff, deputy county clerk, deputy county treasurer, deputy school inspector and deputy for all the rest of the county offices until a formal organization of the county was perfected and regular officers elected. At the trial of the murderer before mentioned it became necessary to shut down the saw mills and call in the men from the woods in order to secure a jury. The law's delays were not invoked as at the present, no special pleadings were interposed, the criminal was arrested and brought down from the north, there was no jail in which to confine him, and he was chained to the posts of the mill until Judge Martin could come and try him; he was promptly found guilty and sentenced to state's prison for life, and there was no writ of error or other delay to hinder his reaching his future home as quickly as he could be taken there. The Hannah, Lay & Co. company was practically for years the whole of the north shore. From 1852 to 1857 Mr. Lay made Traverse his home, Mr. Hannah attending to the Chicago business in the summer, and joining Mr. Lay at Traverse in the winter. After

1857 Mr. Hannah took charge at Traverse and Mr. Lay remained in Chicago. What changes have since that day come over the face of the whole country! Chicago from a few thousand population is a city of 1,900,000. Traverse, from a few saw mill operators, is a city of 6,000 people, with two banks, five or six good hotels, a foundry, electric lights, a water supply system, a large flour mill to grind the grain raised on the farms of a fertile and well-cultivated surrounding country, a daily newspaper, free delivery of letters and three railroads, one of which, seventy miles in length north from Manistee, is a novelty in that it has neither stock nor stock holders, bonds nor bond holders, but was built, equipped and run by a Manistee lumberman, as an individual enterprise, and has proved a paying investment from the start. The depot grounds for all the railroads were donated by the mill company, As before remarked, Hannah, Lay & Co. commenced business in 1850 and continued until 1889. Its original capital was $6,000; during its career it had manufactured fully one thousand million feet of lumber, besides shingles and lath; it had built, bought and owned several vessels, both sail and steam, including the schooner Telegraph, brig J. Young Scammon and steamboat Allegheny, which ran from 1859 until 1870, in which year they commenced the construction of the steamer City of Traverse, which began her career in 1871 and was practically the pioneer in the establishment of the summer resort traffic which has now reached such enormous proportions on the north shore.

After forty years of active business life the mills and remaining timber were sold to John Torrent, the steamer City of Traverse to the Austrian Lake Superior Steamboat line, and the yard in Chicago was closed out. But the members of the firm were by no means superanuated, and were by no means ready to cease activities or retire from business. The Chamber of Commerce, a large stone structure on the corner of Washington and LaSalle streets, was for sale, and they purchased it and became the pioneers in the construction of the mammoth and lofty buildings for which Chicago has become noted. Placing jack screws under the immense structure of stone, which was the equivalent of a five story building, the foundation was reconstructed with grout and railroad iron, an internal construction of iron was carried to the height of 200 feet, including fourteen stories and attic, the outside walls being constructed of terra cotta and a noble fire-proof pile of 600 office rooms valued at $3,000,000 stands as a monument to the enterprise of one of enterprising Chicago's most sagacious and successful firm of lumbermen. The history of Albert Tracy Lay is the history of the firm of which he is an active member.

Mr. Lay is one of the most active and youthful of the older generation of Chicago merchants. His activities have not been wholly confined to the prosecution of his business ventures. He has for many years been an office holder in Grace Episcopal Church, and has exercised a beneficial influence upon all who have come within the compass of his associations.

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CHAPTER XVIII.—MENOMINEE AND GREEN BAY.

EARLY OPERATIONS, 1830 TO 1860.—THE MILLS OF MENOMINIE, MARINETTE AND MENEKAUNEE.—THE GREAT FOREST FIRES OF 1871.—LATER DEVELOPMENT OF THIS REGION.

THE upper peninsula of Michigan did not, to any great extent, come into prominence until the decade of 1860-70, although certain localities favorably situated had attracted attention for some years previous.

Green Bay, while largely within the boundaries of Wisconsin, formed the eastern boundary of Menominee county, and the southern boundary of Delta county. Into Green Bay discharge the waters of the Menominee river which is the boundary line between Michigan and Wisconsin. To the north other streams of less importance as rivers, but of great importance as logging streams, include the Cedar, Bark river, Ford river, Sturgeon river, White Fish, Escanaba Pine, Rapid Pine, Days river and Fish Dam river (or Big Bay du Noque), with several smaller streams; to the south, Wisconsin streams like the Peshtigo and the Oconto penetrate a vast forest upon their respective borders. So extended had become the trade of this section, as early as 1865, that the shipments of that year embraced 200,000,000 feet of lumber and 249,000,000 shingles, with coarser products of the forest valued at $3,500,000.

It has already been stated that William Farnsworth and Charles Brush reached Menominee in 1822 and ten years later, in 1832, built a saw mill on the Wisconsin side of the river, and in 1841 Charles McLeod built the second mill, doing most of the work himself. Iron being scarce and difficult to obtain, he made the cogs of the rack and pinion, the pulleys and the wheels of wood, and as well many other of the working parts, finding excellent hard maple in the vicinity; in fact the machinery of the mill was wholly of wood, iron being dispensed with wherever it was possible in the construction.

A Doctor J. C. Hall in 1844 built a mill (sash) having a capacity for the manufacture of 6,000,000 feet per year by running night and day.

In 1855 the New York Lumber Company expended $80,000 in the erection of a steam saw mill at Menekaunee on the Wisconsin side of the Menominee river, and in 1872 the Menominee River Lumber Company incorporated, with a large mill on the Wisconsin side, and became possessed of between 80,000 and 90,000 acres of pine lands tributary to the upper waters of the stream. This company consisted of Philetus Sawyer (for many years United States Senator from Wisconsin), Jesse Spalding, W. D. Houghteling and O. R. Johnson, who were associated in business as "Spalding, Houghteling & Johnson," as early as 1869, and operated the mills at Saugatuck, Mich., elsewhere mentioned.

In 1857 a mill was erected by Abner Kirby, in which Samuel Stephenson bought an interest in 1859, a single mulay saw and siding mill, in which in 1861 an interest was purchased by Augustus A. Carpenter and his brother William O. Carpenter, and the firm of Kirby, Carpenter & Co. was established and later when the business had attained mammoth proportions, incorporated as "The Kirby-Carpenter Co." The capacity of the original mill hardly exceeded 2,000,000 feet per season, while with rebuildings and modernizing, the mills of later years have in the present attained a capacity for the manufacture of 120,000,000 feet per annum, with a proportionate production of shingles and lath, and with the changing conditions of the currents of trade, extensive dry kilns for the more rapid seasoning, together with planing mills capable of dressing 250,000 feet of lumber per day, have been added to the plant which ranks among the largest in the country.

Previous to 1887 the entire cut of the Menominee river and Green Bay mills was shipped to Chicago by lake craft, but about that date through the extension of railroads into the northern country, facilities were afforded for shipment direct to the retail yards of all sections of the country, and the policy of seasoning the lumber at the mill and manipulating it to suit the wants of consumers was inaugurated, and the yard which the Kirby-Carpenter Company had for many years maintained at Chicago for the wholesaling of its product, was abandoned and the 130,000,000 to 150,000,000 feet annually handled by the company has been graded at the mill, seasoned and passed through the planing mill for dressing to the specific uses for which each piece is more especially adapted, finding its way direct to the yard of the retailer of the east, west or south, in condition suited to the needs of the consumer. Nothing could more strongly illustrate the evolution of the lumber trade during the past half century, than is shown in the history of this company, from the erection of a primitive saw mill of five million feet capacity to such mammoth mills as those which increasing trade has demanded, and in the change from wholesale shipments by water, to the distribution in car load lots direct to a consuming market; but of this further on. In the inception of the business by Abner Kirby in 1856-7 the mill was located on a sand bar of the river, which has since been filled with slabs and debris from the mills forming docks and mill yards of great extent. Samuel M. Stephenson, who became a resident of Menominee in 1858, became a partner in the business in 1859 and was placed in practical charge of the logging and manufacturing departments and so continuing when in 1861 Augustus A. and William O. Carpenter became interested, and upon the incorporation of the Kirby-Carpenter Co. in April, 1872, A. A. Carpenter was made president, Samuel M. Stephenson, vice-president, and S. P.

Gibbs, secretary; later Mr. Stephenson held the offices of vice-president and secretary. In 1867 the company built a new mill of 125,000 feet per day capacity, which in 1886 was thoroughly rebuilt with the most modern appliances, and, as stated, the addition of extensive planing mills, and it was soon after this that the company discontinued the shipment of its product by lake to its wholesale yards at Chicago, and inaugurated the system of finer manipulation and shipment by rail direct to its customers throughout the country. Few of the many extensive lumber manufacturing companies of the northwest have accumulated larger resources in pine lands for the future supply of their mills, it having been the policy of the company for many years to purchase desirable and available tracts which could be utilized in the continued operation of their mills, their holdings reaching as high as a half million acres.

The Hamilton & Merryman Company was established in 1868 by Irenus K. and Woodman C. Hamilton and A. C. Merryman, being incorporated in 1872 as "The Hamilton & Merryman Company," (see also Fond du Lac). When first organized, the firm erected a gang and circular mill at Marinette, increasing the capacity from time to time by the addition of labor saving machinery so fast as new and acceptable devices for the lessening of expense, and the increase of the product, were available, until the capacity of the mill has for many years rated at about 30,000,000 feet per annum, which has to the greater extent found market from the wholesale yards of the company at Chicago until the present time, but is soon expected to take the same lines of distribution which have been mentioned in connection with other similarly situated operations. Like all the other operators of this section the Hamilton & Merryman Co. have for many years adopted the policy of securing large bodies of pine lands tributary to the river and its branches, or available by means of logging railroads, some of the individual holdings among the many operators reaching as high as a half million acres.

The first officers of the Hamilton & Merryman Company, at the incorporation in 1872, were Irenus K. Hamilton, president and treasurer; W. C. Hamilton, vice-president; and A. C. Merryman, secretary and superintendent, and the respective offices have been filled by the same gentlemen to the present time. The recorded cut of the company in 1874 was 13,000,000 feet of lumber, 3,250,000 lath, 5,000,000 shingles and 120,000 pickets, that of 1893 was 23,000,000 feet of lumber with 5,000,000 shingles and 3,000,000 lath. (See Marinette, Wis.)

William E. Bagley and William G. Boswell built a shingle mill on the Bay shore in 1857 which in 1858 was purchased by Henry Naason and John G. Boswell. This mill, together with Naason's dwelling and other buildings, was destroyed by an ice shove which occurred in 1861, and which piled the ice of the bay to the height of thirty and forty feet upon the shore for a long distance. During the ensuing summer Naason built a shingle mill on a little island about two miles from the mouth of the river, which he had in operation in the spring of 1862, it being destroyed by fire in July of the same year.

In 1863 Harrison Ludington, Daniel Wells, Jr., with Robert and Isaac Stephenson began the erection of a mill on the Michigan side of the river, and in 1867 they were joined by Anthony G. Van Schaick in the formation of the house of The Ludington, Wells & Van Schaick Co. The original mill of this company, like nearly all of the saw mills of their day, was but a small affair, but with an ever increasing demand for lumber throughout the country, the mills were enlarged and improved until they had attained a capacity for the production of 75,000,000 feet per season. The business was incorporated in 1874 as the "Ludington, Wells & Van Schaick Co.," and although all of the original incorporators are dead, except Mr. Wells, the company still continues to bear the reputation which for so many years inhered to it, as one of the leading manufacturing institutions of the northwest, having since its institution in 1851 manufactured fully one billion feet of lumber, and a proportionate quantity of shingles, lath and pickets.

In 1863 Messrs. Ludington, Wells, Isaac and Robert Stephenson built a steam saw mill which was then considered the best and most modern on the river. In June, 1865, this mill was burned, the loss being total. Fifty-four days later a new and in every respect better and more modern mill was ready to begin operations; the millwright was William E. Bagley, who for many years was considered the most proficient in his line of any man in the northwest, and under his skillful supervision many of the best mills of Wisconsin have been constructed. With the incorporation of the company in 1874, Harrison Ludington was elected president; Daniel Wells, Jr., vice-president; Anthony G. Van Schaick, secretary and treasurer; Robert Stephenson, superintendent, and these officers were re-elected from year to year until the death of Mr. Van Schaick in October, 1891, his successor being C. S. Burdsal of Chicago, who died but a year later. Mr. Ludington died June 16, 1893, at the ripe age of eighty-three years. In 1871 the company purchased what was known as the "Gilmore mill" on the north bank of the river, it being destroyed by the great fire of October of the same year, the company at once proceeding to the erection of a much larger and more modern mill which began operations in the spring of 1873.

In 1860 Simon Strauss built a mill, later known as the "Jones Mill," on the Bay shore. This venture not proving a financial success at the time, it was, after two years of operation, closed down, being subsequently purchased by William McCartney who, after running it for one season, sold it to John L. Buell, who made extensive improvements, but failed to make a success. After passing through several changes of ownership it passed into the hands of Charles H. Jones and B. Ramsey, who after many vicissitudes successfully operated it for many years with an average cut of about 15,000,000 feet of lumber and 10,000,000 shingles annually. In 1881 mills were erected by Hall & Crozier and by Spies & Martin, which with passing years were improved to rank in capacity with the average mills of the country, the latter increasing its cut from 1,500,000 in 1881 to 14,000,000 feet of lumber and 6,000,000 shingles in 1893.

The Girard Lumber Company was organized in 1881 by John W. Wells and W. C. Culbertson. Mr. Wells came from Davenport, Iowa, in 1869, and in 1876 built a mill on the present site of the Girard Company's mill. This contained a single circular saw, with capacity for cutting 40,000 feet per day, and was operated by Mr. Wells for two years, when a partnership was formed with Mr. Culbertson, who was from Girard, Penn. In 1881 the business was incorporated under the name of the Girard Lumber Company, and the mill capacity increased to 100,000 feet per day. In 1887 the mill was remodeled, and with two band saws and one gang its daily cut was increased to 150,000 feet daily, or an annual production of from twenty to thirty million feet. The company acquired large tracts of pine lands on the head waters of the Menominee river and its tributaries, and in 1889 erected a mill of 18,000,000 feet capacity per annum (running night and day the year around) at Dunbar, a station of the Minneapolis & Sault Ste. Marie R. R., on the head waters of Pike river, in Marinette county, Wisconsin. The officers of the Girard Lumber Co. are W. C. Culbertson, president; John W. Wells, vice-president and manager; J. A. Culbertson, secretary and treasurer. Mr. Wells is also president of the Bird & Wells Lumber Company of Wausaukie, Wisconsin; which has at that place a saw and shingle mill of 18,000,000 feet of lumber and 5,000,000 shingles annual capacity, in connection with which a logging railroad is maintained.

In the fall of 1866 Charles B. and E. S. Ingalls built a mill in the township of Ingallston; E. S. Ingalls selling his interest to his brother in the following year, who after operating for one year sold to Barnard & Wylie and soon after passing into the hands of Carter & Jones, and later being operated for a time by Jesse L. Hamilton under contract with C. B. Ingalls, until its destruction by fire in 1874.

In 1866 William McCartney built a mill on the Wisconsin side below the Carney mill, its product being principally shingles. This mill fell a prey to the great conflagration of October 8, 1871, being succeeded by a larger mill which went into commission in the spring of 1872, and has since been operated with various remodellings and the addition of modern appliances to a capacity of 15,000,000 feet per season. Not far distant from the McCartney mill, William E. Bagley and Daniel Corey in 1871 built a planing mill and sash and door factory, which after being in operation but a few months was burned in the October fire of the same year, as was a small shingle mill built in 1860 by George Hawthorne.

The Sawyer, Goodman Company was organized in 1878 by Philetus Sawyer, James B. Goodman and William O. Goodman (son-in-law of Senator Sawyer), and Edgar P. Sawyer (son of Philetus). This company's mill was located at Menekaunee and has continued to operate until the present time, having a cutting capacity for from 25,000,000 to 30,000,000 feet of lumber and from 6,000,000 to 10,000,000 shingles. In 1882 the same parties organized the Marinette Lumber Company and in 1891 the Quinnisec Logging Co., which built twenty-five miles of logging railroad into the lands of the Marinette Lumber Company, southwest of Iron Mountain, where three townships of timber lands had been acquired. As with other companies previously mentioned this company maintains and has for many years maintained a wholesale yard at Chicago, to which the products of its mill are sent for distribution throughout the country.

In 1874 Lemoyne, Hubbard & Wood built a small mill at Spalding, a station on the Chicago & North Western R. R., forty-two miles north of Menominee. In 1872 Mellen Smith built a shingle mill on the Bay Shore in the town of Ingallston, which he later removed two miles back to the railroad in order to avail of the more ready shipping facilities which the road afforded. In 1874 S. L. Benjamin built a shingle mill on the railroad at a point eighteen miles from Menominee, and in 1875 John W. Wells erected a saw and shingle mill on the Bay shore north of the then village, now city, of Menominee. Bagley and Copp in 1872 built a planing mill on the banks of the bayou, and in 1874 another between Main street and the bay shore. The panicky times of that period caused the mills to be operated but one season and at a later period the machinery of both mills was removed to Stevens Point.

In mention of the Menominee region it is almost a necessity to include both sides of the river, and to treat them as an entity, for while an imaginary line may be drawn to separate Michigan from Wisconsin, the close proximity renders the business interests of one inseparable from that of the other, there being but a well bridged river to separate Menominee on the north bank from Menekaunee and Marinette on the Wisconsin side, while the same channel of log supply is the dependence equally of each, and at the risk of repetition we may not unprofitably review and recapitulate while enlarging upon some points already touched upon.

Mention has been made of the first saw mill on the river as having been built by William Farnsworth and Charles Brush. It was in 1832 that these parties built a dam and mill about two miles from the mouth of the river, on the Wisconsin side. The mill was of the only type known to that time, having a single sash saw with a cutting capacity of four to five thousand feet per day. The mill after a few years was sold by the Sheriff and was bid in by the creditor, Daniel M. Whitney of Green Bay (elsewhere frequently mentioned), who sold his bid to Samuel Farnsworth for eighteen barrels of white fish, and in 1839 Doctor J. C. Hall bought this interest and also bought in with Farnsworth & Brush who still continued in the business; in 1842 the dam went out in a flood and the mill was abandoned. While this mill was in operation, its product like that of the McLeod mill at Twin Island eighteen miles up the river, was rafted to the mouth of the river for sale and shipment. The demands of the day were not sufficient to make the business of either mill profitable, and in a few years the McLeod mill like its predecessor, went out of commission and fell into decay.

In 1844 Farnsworth & Brush built another mill farther up the rapids and upon the Michigan side which is reputed to have had capacity for cutting 6,000,000 feet per year, but it is doubtful if its product exceeded one quarter of that amount as the conditions of trade and the known character of the mill would not give it a capacity for more than ten thousand feet per day of twenty-four hours if run to its fullest extent; it was no doubt enlarged at a later date, and was successively owned by Hall & Jerome, Spaids and Zenas Cobb of Chicago; Cobb sold again to Doctor Hall in 1847, who becoming embarrassed in 1851 his creditors operated the mill to secure themselves, and it soon after became the property of Gardner & Baker, two of the creditors, who in turn sold to Ellsworth, Shepherd & Douglas (1853) and they becoming involved, the property was assigned to Ludington & Foss. The mill was burned in 1856 and the dam went out soon after and "Doc Hall's" old water mill became but a legend of the past with nothing left of the old operation. The Menominee River Manufacturing Co. later rebuilt the dam which has since been used in connection with the operations of the Boom Company in the running and sorting of logs.

In 1854 Hogeboom & Boyden built a mill on the Big Cedar river two miles from its mouth, at the present town of Cedarville, a man named Bailey having built a dam on the river. Bailey was well known to the early operators, and probably owned an interest in the Hogeboom & Bailey mill. In this mill Joel S. Fisk was interested through purchase of Hogeboom's interest, and in 1851 it became the property of Samuel Hamilton and Sylvester Lynn, who thinking that they were not making lumber fast enough under the growing demands of the day, erected a steam mill at the mouth of the river allowing the water mill to fall into decay. Lynn sold his interest to Boyden & Spinner who sold to James McCaffrey, who failing, the property passed into the hands of John Young Seammon & Co. of the Marine Bank of Chicago, who sold it to J. M. Underwood who in 1862 sold it to Jesse Spalding and Robert Law of Chicago; Law in 1864 sold his interest to H. H. Porter, and not long after the property was purchased by Le Moyne, Hubbard & Wood, who sold back to Jesse Spalding who has since owned it, and with repeated remodelings and modernizing, manufactures 30,000,000 feet of lumber, 15,000,000 shingles and a proportionate quantity of lath yearly. The history of these early mills is of interest as revealing the difficulties and reverses sustained by the pioneers of what has since become not only a fully established, but profitable industry, beyond the fondest hopes of those who spent their time and money only to reap disappointment and failure.

The history of the New York Lumber Company which in 1856 expended $80,000 in the building of a mill at Menekaunee, still farther illustrates the vicissitudes experienced by the earlier operators, although in this case an utter lack of knowledge of lumbering, was sufficient to account for the misfortunes which befel the company. Its members were from Pennsylvania and neither of them had experience in the manufacture of lumber in the northwest, whatever knowledge they may have had of eastern customs. As as illustration, they bagged their saw dust and hauled it on an iron-bound sled to a dumping ground in the adjoining marsh, this being but a sample of their crude ideas of practical lumbering. But one year after their mill was erected, the country was visited by the disastrous financial revulsion of 1857, and the company was forced in the following year to an assignment, the creditors continuing to operate the mill through Hosmer & Fowler, until in 1860 when it was purchased by Charles and Henry Wells of Pennsylvania. In 1861 Henry Wells sold his interest to Jesse Spalding who operated the mill until 1865 when H. H. Porter became interested and in 1872 the business was incorporated and has since been known as the Menominee River Lumber Company. Hon. Philetus Sawyer of Oshkosh, for many years United States Senator from Wisconsin became largely interested as a stockholder, and has for many years been president of the company, which in its prosperity made large accumulations of pine lands, reaching into hundreds of thousands of acres on the Michigan side of the river. In 1869 the mills of the company were destroyed by fire the loss being total; Messrs. Spalding and Porter immediately set about building a new and much better mill on the middle ground of the river near the site of the old mill. The new mill was equipped with the most modern machinery and had been in operation one season and a portion of the second when the historic fire of October, 1871, originating in the forest, swept over the village and the new mill shared in the general destruction. Nothing daunted the enterprising company proceeded at once to erect a new mill upon the site of the one destroyed, and the company has since enjoyed a high measure of prosperity with an annual cut of 25,500,000 feet of lumber, 6,000,000 shingles, and 2,000,000 lath and pickets. At the time of the incorporation of the company, W. D. Houghteling was elected president; Horace Williston, secretary and treasurer; the board of directors being composed of W. D. Houghteling, Jesse Spalding, H. H. Porter, O. R. Johnson and F. B. Stockbridge.

In 1853 Anson Bangs built a mill on Little river a branch of the Menominee, and about five miles from the then village of Menominee. Mr. Bangs ran the mill but one season when it was practically abandoned for several years. In 1870 the mill was remodelled and provided with shingle machinery in addition to one saw for the manufacture of lumber. This was done by Timothy Cole & Co. who ran the mill for one season when it fell a prey to the forest fires of October, 1871.

Repeated reference has been made to the great forest fire which decimated the Green Bay region in October, 1871. The season had been a remarkably dry and hot one, the rain fall had been but a fraction of what was usually experienced, and in October the ground was practically free from moisture. The leafy mold of the forests of Michigan and Wisconsin was in excellent condition to favor a great conflagration. The atmosphere was dry and hot almost to suffocation, and it was under these conditions that a fire starting a few miles north of Oconto village in the early evening of October 8th, 1871, gathering strength from its own currents and hastened by a southwest wind, soon became a tornado of flame before which the forests melted, and whole villages were swept out of existence. Within three hours of its inception the flames had covered a breadth of

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more than ten miles and on its onward course wiped out the village of Peshtigo, Wisconsin, leaving hundreds of corpses of men, women and children as well as of animals in its devastating course; by half past nine o'clock in the evening it had reached the Menominee river but had fortunately divided just before reaching that point, a body of flame on the east sweeping through the village of Menekaunee to its utter destruction, and crossing the river at the mouth, destroyed the Gilmore mill on the Menominee side and could go no farther for the lake whose banks it had now reached. On the west, however, the flames crossed the rapids and swept east and north, striking the Bay shore about a mile north of Menominee, continuing on with a width of ten miles to a point sixteen miles north of that village. In its onward course as it crossed the river, it destroyed the mill of the Ludington, Wells & Van Schaick Company, and passing up the flat through the village, destroyed everything in its pathway. In its course, the fire in the short space of about four hours, swept over an area ten miles in width by forty miles in length, and it is estimated that no less than twelve hundred persons perished in the fiery furnace. The 8th of October was memorable not alone for the great forest fire of which we have spoken, for it was upon that day that the conflagration began which laid the city of Chicago in ashes, and on that same day the forests of the lower peninsula of Michigan were enveloped in flames with the destruction of many lives, while yet the disaster in which the region north of Oconto was involved was by far the most serious so far as the loss of human life was concerned, while in the value of property destroyed it was exceeded only by the conflagration which laid Chicago in ashes. The peculiarity of the atmospheric conditions which prevailed throughout the northwest have seldom if ever been noted in the history of the nation. The air seemed inflammable, tongues of flame like demons of evil darted through the air, bodies of flame leaped over long distances, kindling new fires a half mile in advance of the main conflagration, which in seemingly but an instant of time filled the intervening space. It was as though an army of devils with torches aflame had been sent through space to wreak vengeance upon the earth and its puny and helpless inhabitants. Villages, cities, farm houses and mill properties vanished from the earth as in a moment. Those who sat down to the evening meal in the fullness of health, and with no misgivings of evil, arose to find themselves already enveloped in the grasp of flames which left their blackened corpses amid the ashes of their once happy homes. Nothing could stay its progress, nothing escape its fury, until its onward march was checked by the waters of the lake and it had nothing more upon which to wreak its fury. Many have been the devastating fires in the forest (and it is often asserted that more timber has been destroyed by such fires than has been utilized in lumber), but not in the history of the northwest has the experience of October 8th, 1871, been equalled in the rapidity of the progress of the flames and the extent of its destructiveness.

In 1860 the N. Ludington Company purchased the old passenger steamboat Morgan L. Martin, and converted her into a tug for use in their business. This was the first tug on the Menominee river, and the first boat to enter the Cedar, the Ford or the White Fish rivers, and the fourth to enter the Escanaba river. She was a side wheeler, originally built to run on the Fox river.

For many years there was no dock at the mouth of the Menominee river, but in 1868 the Kirby, Carpenter Company built a dock at which steamboats made landing, the sand bar being partially dredged to a sufficient depth of water to allow boats to cross it, and in the same year the company purchased the tug "Bob Mills," and in the following year George Coon and Andrew Stephenson built the tug "Annie Laurie," which was afterward sold to the H. Witbeck Company. In 1870 the Ludington, Wells & Van Schaick Co. bought the side wheel tug "Mary Reid," which after being used awhile was sold, to go to Saginaw Bay.

In 1872 the company purchased the tug "Bob Stephenson," and in the same year Isaac and Samuel M. Stephenson bought the tug "Escanaba." The N. Ludington Co. had in 1868 purchased a side wheel tug which was named after Isaac Stephenson. With the advent of these steam auxiliaries the work of shipment became much easier. Until 1871 nearly all the lumber was shipped upon small vessels, and it was not an infrequent occurrence that as many as thirty or more of these small craft were at one time anchored outside the bar while their cargoes were being rafted to them. The origin of the tow barge line which later formed so important an auxiliary to the business at Menominee was with the Peshtigo Company, of which Isaac Stephenson was vice-president and manager, and in which other parties were interested. The enterprise was undertaken contrary to the advice of men skilled in the navigation of the lakes, who asserted that Lake Michigan was too rough to make it a success, but as the sequel proved, it was a success from the beginning. In 1871 the Kirby, Carpenter Co. purchased the propeller Favorite, which carried a goodly cargo herself and towed one or more barges or vessels, thus transporting three to four hundred thousand feet in one trip. In 1873 a company was formed by the N. Ludington Co., later Ludington, Wells & Van Schaick, Menominee River Lumber Co. and H. Whitbeck companies, which purchased the large propeller Bismark and six towing barges (later increased to twelve), with capacity for stowing three million feet of lumber, and formed "The Marinette Barge Line Transportation Company," for the more expeditious transportation of the large quantities of lumber and shingles which by this time comprised the manufacture of the mills at this point. The original line of this company consisted of the barges Tyson, 425,000 feet capacity; Filer, 480,000; Robinson, 400,000, and Eldorado, 500,000. These were added to by the construction by the company of the Marinette, 550,000; Menekaunee, 650,000; H. Witbeck, 600,000; Isaac Stephenson, 400,000, and the Fred Carney, 425,000, and by the purchase of the razeed schooner M. Corey, 500,000; E. T. Judd, 450,000, and Grandy, 400,000 feet capacity, forming a fleet of twelve barges, of which three were loading at Menominee, three unloading at Chicago, and three en route going or coming, enabling the transportation of a million and a half to two million feet at each trip. This line for many years, and until 1893, proved a most reliable dependence of the Menominee river manufacturers in the marketing of their product.

About 1888 several of the mills adopted the plan of seasoning the lumber on the mill yard, dressing it in the extensive planing mills erected in connection with their saw mills, and by the now extensive railroad facilities afforded by the extension of lines to this section, shipped their product direct to their customers in all sections of the country, in a condition and in such quantities as the demands of the market required, until it is safe to say that at this time the bulk of the 350,000,000 feet annually manufactured at this point finds shipment by rail, while a large proportion of the balance finds favor with the eastern lumber dealers, who finding a lessened production at Saginaw and other producing points farther east, have been compelled to seek markets which by reason of the increased cost of transportation, they have previously neglected or ignored. Although well to the north, the region about Menominee has developed into a rich agricultural country, furnishing the larger proportion of the supplies needed by the inhabitants of the thriving cities which have been developed, the rapidly increasing poulation of the contiguous territory and of the lumber camps in the interior, all of which were for many years wholly dependent upon the outside world for the necessaries of life.

A roster of the mills at this point in 1895, together with the cut of each for that year, is as follows, viz.:

At Menominee—Girard Lumber Co., 26,371,143 feet of lumber; Menominee River Shingle Co., 21,063,000 shingles; Kirby, Carpenter Co., 103,568,961 feet of lumber, 28,380,750 shingles; Ludington, Wells & Van Schaick Co., 35,000,000 feet of lumber, 8,500,000 shingles; Menominee Bay Shore Lumber Co., 18,000,000 feet of lumber; Donovan & O'Connor, 15,000,000 feet of lumber, 10,000,000 shingles; Ramsey & Jones, 12,574,311 feet of lumber; August Spies, 5,000,000 feet of lumber; Menominee Saw Mill Co., 7,000,000 feet of lumber, 1,500,000 shingles; Blodgett & Davis Lumber Co., 20,000,000 feet of lumber, a total cut for that year of 216,143,272 feet of lumber and 69,443,750 shingles manufactured on the north bank of the river.

Although Marinette and Menekaunee are upon the Wisconsin side of the river, and are referred to in connection with the history of that State, yet as they are practically a part and portion of the Menominee district it is not inappropriate to consider them as has been done in these pages as a part of Menominee. The mills at these points reported in 1895 their cuts as follows, viz.:

Marinette—Hamilton & Merryman Co., 22,927,713 feet of lumber, 5,046,500 shingles; Scofield & Arnold Lumber Co., 18,010,000 feet of lumber; R. W. Merryman & Co., 23,376,500 feet of lumber, 381,500 shingles; Lieber & Noll Manufacturing Co., 12,000,000 shingles; N. Ludington Co., 23,300,000 feet of lumber, 4,700,000 shingles; Stephenson Manufacturing Co., 12,766,114 feet of lumber, 1,259,500 shingles; H. Witbeck Co., 43,084,526 feet of lumber, 10,624,000 shingles, making a total manufacture for Marinette for 1895 of 143,464,853 feet of lumber and 34,011,500 shingles.

At Menekaunee—Menominee River Lumber Co., 25,000,000 feet of lumber; Sawyer, Goodman Co., 26,000,000 feet of lumber, 6,000,000 shingles; making a total for Menekaunee of 51,000,000 feet of lumber and 6,000,000 shingles, and a grand total of production for the Menominee river in 1895 of 436,979, 263 feet of lumber and 109,455,250 shingles.

While it is impracticable to make specific mention of the many hundreds of saw and shingle mills which have been put in operation in all portions of the lumber districts of the northwest, it must not be forgotten that their number is legion, and their production a not inconsiderable factor in the grand total, and the country north of Menominee is to be credited with its proportion. Mills at Ingalls, Daggetts, Wallace, Bagley, Nadeau, Hermansville, Norway, Foster City, Escanaba, Cedar River, Ford River, Wells, Vans Harbor, Gladstone, Nahma and other points upon the shores of Bay de Noque are credited with a cut in 1895 of no less than 200,000,000 feet of lumber and 118,000,000 shingles while other miscellaneous mills scattered throughout the State and which are not included in the statistical returns of the more prominent cities or localities, figured in the reports for 1895 as producing 196,145,937 feet of lumber and 226,266,500 shingles.

So early as 1873 the cut of the Green Bay district which included the Wisconsin towns of Peshtigo, Pensaukee, Suamico, Green Bay, and Fort Howard, as well as Sturgeon Bay and minor points, including Menominee and the region to the north, was reported at 283,000,000 feet of lumber and 108,450,000 shingles, a production which was but slightly increased until 1880 in which year 505,919,821 feet of lumber and 189,561,000 shingles was reported, and from that time the increase was rapid, reaching 918,919,821 feet of lumber and 389,196,000 shingles in 1889, and 972,828,418 feet of lumber and 306,941,000 shingles in 1892, since which date there has been a material reduction in the volume in consequence largely of the commercial stringency, as well as the lessened resources of the forest. The cut of 1895 reveals a production according to the returns from the mills of but 749,253,796 feet of lumber and 330,085,250 shingles, while the cut of 1896 reduced the output to 639,673,224 feet of lumber and 322,462,000 shingles.

The aggregate production of the Green Bay region from 1873 to 1896 as reported from year to year, was 14,259,755,210 feet of lumber and 5,268,444,708 shingles, equalling a grand total so reported of 14,909,755,210 feet of logs, (shingles being figured at 8 to 1). To this it is safe to add an estimate of 33 per cent for the production previous to 1873, and for such quantity as may have escaped a report from year to year, and we may safely estimate the aggregate production of the Green Bay region from the first at no less a quantity than 20,000,000,000 feet. If the total cut of the Green Bay region was placed, each board at the end of another, it would form a walk one inch thick and one foot wide, nearly 357,000 miles in length, or fourteen times around the globe, and at five thousand feet to the acre denuding no less than 4,000,000 acres of land in its production.

The resources of the Menominee, while greatly depleted under the cutting of so vast a quantity of lumber, will probably continue to allow of the production of an estimated 400,000,000 feet of lumber at the mills of the river for five or more years to come, after which gleanings will afford a smaller and less valuable quantity for many years later.

A careful analysis of the figures as reported from year to year, will divide the production of the Green Bay district in the proportion of three-sevenths to Wisconsin, and four-sevenths to the Michigan portion of the territory, and in this ratio, we assign 11,428,571,428 feet to the sum total of Michigan as found in our final resume, and the balance 8,571,428,571 feet to Wisconsin product.

In the impossibility of arriving at exact figures, these estimates probably approximate as near the truth as it is possible to arrive.

Augustus Alvord Carpenter, the acknowledged Nestor of the Chicago Lumber trade, and among the most prominent manufacturers of Menominee, was born June 12, 1825, at Chateaugay, Franklin County, New York, the son of Alanson and Guliaelma Nicholas Carpenter. The humble circumstances of his parents forbade the enjoyment of those high privileges of education and of fortune, which are to so great an extent deemed necessary to enable a youth to mount the ladder of prosperity and success in life, and the position of influence and affluence which surrounds his later years, is the outcome solely of his own diligently applied industry, perseverance and regard for the obligation resting upon him as a citizen, to advance public interests, while seeking that business success with which his life has been crowned. With but the advantages in winter of the common schools of the day, his earlier years were spent upon the farm, until at the age of 17 he sturdily set forth to carve his fortune, spending several years in farming and general merchandising, until the flattering inducements held out to him by the discovery of gold in California, induced him in 1852 to seek the country which at that time attracted the attention of the adventurous and enterprising of all nations in search of the much vaunted wealth attributed to it. While there he engaged in mining and trading at Rose's bar on the Yuba river near Marysville, meeting with no abnormal success in the acquisition of wealth, as the result of his adventurous journey via the Isthmus of Panama. Returning east in 1855 Mr. Carpenter settled at Monroe, Wisconsin, where he engaged in a dry goods and cattle business, until the panic of 1857 had spent its force. In 1859 he in connection with his brother William O. opened a retail lumber yard at Monroe, and in 1861 the brothers bought into the firm of Kirby & Stephenson who had a single mulay mill at Menominee, Michigan, and a retail yard at Milwaukee, Wis., and the firm of Kirby, Carpenter & Co., was formed which in 1872 was incorporated under the laws of Illinois as "The Kirby Carpenter Company," and notwithstanding the severance in 1880 of Mr. Kirby's relation with the company, the incorporate name remains the same. The mill at Menominee originally consisting of a single mulay saw, with capacity of 2,000,000 feet (day sawing) per year, has by subsequent building and rebuilding become three mills containing four circulars, three gangs and four band saws with a cutting capacity of 115,000,000 feet per year, which amount was sawed in 1892. The original capital stock of the incorporated company was $500,000, and an accumulated surplus of $362,555.21 and while at this time the capital stock remains the same, the accumulated surplus has reached over $4,000,000. At the organization of the company its timber resources were about 400,000,000 feet which have been increased from time to time by purchases of 1,300,000,000 feet, its present timber holdings being estimated at 800,000,000 feet of standing timber. From its organization Mr. A. A. Carpenter has had the principal management of the affairs of the original firm, and the incorporated company, and it was under his wise government that it has developed to a position confessedly at the head of the lumber trade of Chicago, and the Lake Michigan shores. Few have any idea of the magnitude of the business represented by the figures of production, viz., 115,000,000 feet of lumber. The minimum number of men employed by the company is 700, while the number at times run up to 1,200. Four hundred horses and mules are employed in various departments; requiring the product of six large farms to supply their needs, even when supplemented by the purchase of vast amounts of grain and other materials needful for their sustenance. A large grist mill is constantly in operation in preparing food for the live stock. In addition to the saw mills, are the dry kilns of forty to fifty thousand feet daily capacity, with the planing mill of two hundred and fifty thousand feet capacity, while the piling grounds cover a space of fifty acres. Over this vast business with its details Mr. Carpenter has for more than thirty years presided, wisely watching the progress of events, and keeping pace with the progress and business demands of the country, so that the business has grown from the four million feet comprising the trade of 1860, to a trade of 134,000,000 feet by 1892, with but a minimum of friction and a steadily increasing growth. These results could have been realized only by a wise appreciation of the details inherent to so vast a trade, and here was Mr. Carpenter's strong point, it being his motto that if details are properly looked into, the results and generalizations will take care of themselves. As a result Mr. Carpenter knows from year to year the exact cost of his mill product and is prepared to question the cause which may lead to an increased average of cost per thousand be it ever so slight, and being prepared to adopt all new devices for cheapening the cost of production, there is in his estimation room only for reduction in the average expense.

From this it will be seen that Mr. Carpenter's administrative abilities are above the average, and that system and order mark every department of his vast business. In the early inception of the business a portion of the cut of timber was disposed of at the Milwaukee yards, while an occasional cargo was sold in the Chicago market, until in 1863 a yard was opened at Chicago, on the point at the junction of the north branch with the main river, where with a trade of from 8,000,000 to 10,000,000 feet per annum, it was rapidly increased until a new mill was built in 1867-8 and still further increased from time to time until the aggregate sales which had reached 134,000,000 feet in 1892 attest the increased capacity ultimately attained, and which with the railroad facilities of recent years has made it necessary to remove the headquarters and yards of the company from Chicago to the mills at Menominee. Mr. Carpenter has been President of the company since its organization. For many years previous to the removal of the business to Menominee, the yard was maintained in the lumber district of twenty-second street, Chicago, where the bulk of the mill product was sold to country dealers, the main office of the company being at the lumber market on South Water street.

Mr. Carpenter was married in 1863 to Elizabeth K. Kempton of New Bedford, Mass., and a son, A. A. Carpenter, Jr., and a daughter, Amie, wife of John E. Newell, Esq., of Chicago, are the issue.

Mr. Carpenter took up his residence in Chicago in 1862, settling on the north side. A man of his force and character could be but a short time in making his influence felt in the community, and while managing and directing so vast a business, he found time to leave his impress upon matters and developments of public nature, and has proved one of the foremost and most influential advocates of many measures promulgated for the public good. He has filled the position of President in the Citizen's Association, and in the Commercial Club, has been one of the foremost advocates of reform in the city government, and an earnest advocate of the election law which was adopted in 1885. His labors have been stupendous in all endeavors to bring about a higher condition of morality in the city, and his purse, and his influence over the means of others for the accomplishment of good ends in public or private affairs in the community, have been excelled by none. Firm in character, tolerant of the opinions of others, with a broad and intelligent appreciation of the effect of present action and policy upon the future, Mr. Carpenter has possessed the confidence even of those who differ with him in sentiment.

Mr. Carpenter is a man of generous sympathies in which he is ably seconded by Mrs. Carpenter, and many are they who have been the recipients of the sincere sympathy and practical aid of their liberal hands. With a lovely home which is yet free from ostentatious display, no small proportion of the time of Mrs. Carpenter is devoted to the promotion of those organizations which have for their object the amelioration of the condition of the ill-favored and unfortunate, a prominent subject of her efforts being the providing of industrial employment for indigent women who must earn their own living, and the success of the Chicago Training School for Nurses, and the Woman's Exchange, are evidences of the practical character of her endeavors.

Mr. Carpenter is a Republican in politics and has been of value in the local councils of the party both in the matter of advice and financial aid. A ready speaker and logical, as a presiding officer he has few superiors. When he espouses a cause, it receives his most earnest support and is sure of a successful issue, because of his faculty for at once seeing the proper lines for securing the desired result.

In public life few men have left a more marked imprint for good upon our community. Never courting publicity, Mr. Carpenter has held several important positions in connection with the business and development of Chicago, never shrinking from the responsibilities while never desiring praise for any utterance or course of procedure. A Board of Directors of the Lumberman's Exchange could hardly be made up without adding the name of A. A. Carpenter who was one of the incorporators of the institution, was elected vice-president in 1876 and president in 1882 and served continually on the Executive Committee until 1888. He was president of the Citizens' Association, and of the Union and Commercial Clubs, the former for two years, the latter for one, and has been for years a Director of the First National Bank of Chicago. He was for ten or twelve years President of the Lumberman's Mining Company of Iron Mountain, Mich., one of the earliest and most successful developers of the vast mineral resources of the northwest, and one which has ably seconded the lumber industry in promoting the prosperity of the country, and since 1888, when the Chicago distributing yard was abandoned and the business concentrated at Menominee, has been an active participant in all those matters which were calculated to advance the growth of that thriving city. He is president of the Lumberman's National Bank of Menominee, owns a large block of the stock of the Electric Light, Railway and Power Company, and is actively interested in other public enterprises in Menominee. The mills of the company are equipped with a system of pumps which are readily used to reinforce those of the city in case of need, and were of superior capacity to those of the city until quite recently, while its private electric plant for the lighting of its mills and offices is surpassed by few private plants in the country. The company maintains a general store, complete in all its details, carrying a stock whose average inventory is fully $75,000.

Thus have we partially traced the career of a man, of a self-made man, a man who with no hereditary name of grandeur or honor to give him a boost, had in three score and ten years, allotted as the measure of man's days, carved out for himself and his posterity not only an ample fortune, but a name which is not only honorable, but honored, a reputation worthy of the emulation of those who shall succeed him in business life or in civic affairs, and one to which his children may point with pride as they assert, "He was that noblest work of God, an honest man, a public-spirited citizen, a faithful friend, and a generous dispenser of those bounties with which a kind providence had blessed him."

Hon. Isaac Stephenson, Marinette, Wisconsin.—In the first half of the nineteenth century the conditions of life among the people of the northern states of this country were very different from those now existing. Daily toil, bread earned by the sweat of the brow, by unflinching application of the physical or mental faculties, or both, from youth to age, has always been the lot of the great majority. But the toilers in shops, on farms, or in factories of to-day live in the daily enjoyment of comforts which were unattainable luxuries or entirely unknown to their predecessors of half a century ago. Yet to them, in their generation, the conditions which would seem to us hard caused no more discontent than anywhere attends the lot of men who can see a hope or prospective opportunities for bettering their condition, and are spurred on by such discontent as they do feel, to make the best they may of the opportunities they have.

Everywhere in our own land are found men who have worked their own way from lowly and humble beginning to places of leadership in the commerce, the great productive industries, and management of the veins and arteries of the traffic and exchanges of the country. Not unfrequently they are found among the trusted leaders and representatives in the councils of the state and nation.

It is one of the glories of our country that this is so. It should be the strongest incentive and encouragement to the youth of the country that it is so.

Prominent, and in some respects exceptional, among the self-made representative men of Wisconsin is the subject of this sketch—a man honored, respected and esteemed wherever known, and most of all where he is best known. The biography of such a man, however briefly told, should trace the causes of his successful career.

Isaac Stephenson was born in York county, near Fredericton, New Brunswick, June 18, 1829. His father, Isaac Stephenson, was of Scotch-Irish extraction; his mother, Elizabeth, nee Watson, was a native of London, England. His father was a lumberman and farmer, and the boy passed his early youth on the farm, assisting his father to the best of his ability. He attended the public schools for a short time, but most of his education has been obtained by observation and in the school of experience. When fourteen years of age he moved to Bangor, Maine, but about a year and a half later accompanied Jefferson Sinclair, as a member of his family, westward, and located in Milwaukee, Wisconsin, where he arrived on November 15, 1845. There the boy resumed his studies in the common schools, but about the first of April, 1846, he accompanied Mr. Sinclair to an undeveloped farm, located five miles south of Janesville, Wisconsin, where, during that spring and summer, he broke one hundred and thirty acres of land and helped put in four hundred acres of wheat. The following year they also put in the same number of acres in wheat, but both crops were failures—the first being winter killed and the next ruined by rust.

Mr. Sinclair having become financially interested with Daniel Wells, Jr., in lands in northern Michigan, around Escanaba, the youth transferred the scene of his labors to that section. He early in life displayed executive ability, and, even at this early age, reliance was placed upon his sound judgment and sterling integrity. He worked hard and faithfully, and during the first season drove a six-ox team, Yankee fashion, with a goad stick; hauled whole trees, and, incidentally, one hundred and fifty spars that were shipped to Chicago and Milwaukee. At that time there were no boats large enough to load these spars and they were lashed to the sides of the vessels. In 1847-9 he was placed in charge of the lumber camps, and in 1850 began taking contracts on his own account, for putting in logs. His life at this time was full of hard and perilous work. Even at the present time logging is far from a pleasant occupation, but in those early days, when facilities were poor, it was far more difficult and hazardous. Frequently has our subject been up to his armpits in an icy stream, and, with water rushing about him, dashing spray over his head and beard, forming ice wherever it lighted, directed the course of logs to the boom. The summer months, at this time, he occupied by sailing on Lake Michigan, and, during the warm seasons of 1849, 1850 and 1851, he sailed on vessels carrying freight from Chicago and Milwaukee to Escanaba; and, before he was twenty-one years of age, he owned the controlling interest in the schooner Cleopatra, which, in 1853, was lost about a mile south of Chicago. The summer of 1848 he attended school in Milwaukee.

He naturally became a good judge of the value of timber lands, and explored large sections in the upper peninsula of Michigan, locating the more valuable tracts. In July, 1848, the first land office was opened in northern Michigan, at Sault de Ste. Marie, and, accompanied by Daniel Wells, Jr., and Jefferson Sinclair, he attended the first sale and assisted in purchasing large tracts of valuable timber lands on the Escanaba, Ford and Sturgeon rivers and on Big Bay de Noquet. In 1852 it was decided to build breakwaters along the shore of Lake Michigan in Chicago, and Mr. Stephenson, associated with N. Ludington & Company, cut and delivered, during the years 1852-3-4-5, the timber that was used in constructing the first breakwaters built. In 1857 Mr. Stephenson discontinued contracting logs, and in 1858 purchased a quarter interest in the property and mill owned by N. Ludington & Company. Of this business he at once became the managerial head and controlling spirit, and succeeded in placing it upon a prosperous footing. In 1868 it was decided to incorporate the business as a stock company, and, being desirous of retaining the prestige of the old firm name, Mr. Stephenson decided to call the corporation the N. Ludington Company. This was the first instance that a firm name was continued in a succeeding corporation. The N. Ludington Company is capitalized for $700,000, of which Mr. Stephenson owns a controlling interest. He acted as vice-president from the time of its incorporation until 1883. Since then he has served continuously as president. In 1867 he became interested in the Peshtigo Company, of which W. B. Ogden, Chicago's first mayor, was the largest stockholder. Of this corporation, capitalized for $1,500,000, Mr. Stephenson became vice-president. The company built the largest woodenware factory in the world, and conducted a large and satisfactory business in lumber and woodenware, until October 8, 1871, when its plant in Peshtigo was destroyed by fire, on the same day that the great conflagration in Chicago devoured its retail yards. A loss of nearly two million dollars was entailed by these disastrous fires. The mill and village were immediately reconstructed. At the time Mr. Stephenson became interested in the Peshtigo Company he became convinced that it was feasible to tow barges on Lake Michigan, although most of the men who understood the condition of that treacherous body of water deemed it impracticable. Mr. Stephenson proved that his theory was correct, and started the first tugs on the upper lakes. The Stephenson Transportation Company, operating the steamer Boscobel and six barges, resulted from his experiments in that direction. Mr. Stephenson was also instrumental in organizing the Sturgeon Bay & Lake Michigan Ship Canal & Harbor Company, which constructed a canal from Sturgeon Bay to Lake Michigan. The construction of this canal was immediately under the supervision of Mr. Stephenson, Jesse Spalding and the late William E. Strong. The canal was sold to the government and has been of material advantage to all the Green Bay section.

Mr. Stephenson is the parent of the Menominee River & Boom Company. This corporation now handles more logs than any other boom company in the world. In 1867 Mr. Stephenson was requested by the lumbermen of the Menominee river to devise plans for a main boom on the Menominee river. This he did, and superintended its design and construction from start to finish, improving it yearly. He is president of the company, which is capitalized for one and a quarter million dollars. It controls some forty dams on the river and its tributaries, and drives all logs on the main river with its system of dams. An idea of the immense quantity of logs handled by the company can be obtained from the fact that in one year six hundred and seventy-five millions of feet of logs were divided through the boom. Very few men have as many large business interests as Mr. Stephenson possesses. He has, in addition to those mentioned above, large financial investments in the following: The I. Stephenson Company, of Escanaba, Michigan, organized about 1886, is capitalized for $600,000, and claims him as president and manager. This company owns one of the largest, if not the largest, of the retail yards in Chicago. In 1873 he organized the Stephenson Banking Company as a state bank, and in 1888 merged that into the Stephenson National Bank, which he then organized, with $100,000 capital, and now acts as its president. Associated with Daniel Wells, Jr., and Charles Ray, of Milwaukee, he purchased, for $700,000, the plant and property of the Peshtigo Company and reorganized it as the Peshtigo Lumber Company. Of this he is also president. He was also one of the organizers of the Marinette & Menominee Paper Company, which is capitalized for $750,000, and of which he owns a one-seventh interest. The company's plant consists of three mills, and is one of the finest in the west. Mr. Stephenson is also president of the Stephenson Manufacturing Company, which cuts about fifteen millions of feet of lumber yearly, and is capitalized for $50,000. He has large interests in pine lands in the northwest and in Louisiana. The Peshtigo Lumber Company, of which he is president and has one-third interest, owns one hundred and thirty-six thousand acres of land. The N. Ludington Company, of which he has a controlling interest, and is also president, owns one hundred and thirty thousand acres; and in Louisiana he and his associates own one hundred and twenty-five thousand acres of pine lands. Mr. Stephenson is interested in farming on a large scale. He owns a farm of nine hundred acres five miles west of Kenosha, Wisconsin. On this farm he has one hundred horses, twelve hundred sheep, one hundred and twenty-five cows, besides other cattle. This is considered one of the best equipped farms in the state. He is interested in a creamery near there that makes three hundred pounds of butter per day. He also owns a farm in the city of Marinette, where he is raising fast trotting horses. Mr. Stephenson has been enterprising in every direction, and in a great many instances was the pioneer of certain industries. He placed the first steamboats on the Menominee and its tributaries. The tug Morgan L. Martin was placed on the Menominee river by him. He took the first steamboat into Cedar river; the first into Ford river; the first into White Fish river, at the head of Little Bay de Noquet, and the second steamboat in to the Escanaba river.

Politically Mr. Stephenson was formerly a Whig, but, upon the organization of the Republican party, in 1856, joined its ranks, and has since then been one of the staunchest advocates of the doctrine of true Republicanism. In 1856 he stood on the courthouse steps in Chicago and peddled tickets for John C. Fremont and other Republican candidates. He has been honored by his fellow citizens with their political preference, and in 1866 and 1868 served in the Wisconsin general assembly. In 1882 he was elected to congress, and, after serving three terms of two years each, declined a renomination, owing to the stress of his business affairs. In congress he served on the committees on agriculture, public lands and river and harbors, in addition to other minor committees. In 1880 he was a delegate to the Republican national convention, which nominated Garfield. For thirty-three ballots he cast his vote for Blaine, then, believing that the old commander was the strongest candidate, he twice voted for Grant, but on the final ballot cast his vote for Garfield. In 1892 he was a delegate at large to the Minneapolis convention, that renominated Harrison. Probably no man in the northwest is more thoroughly conversant with affairs of state, or is more intimately acquainted with the acknowledged political leaders than is he. Reed, McKinley and others of prominence are honored with his friendship. The hero of Winchester, "Little Phil," as his soldiers delighted to call him, passed many delightful hours in the society of Mr. Stephenson, and, to the day of his death, valued his friendship very highly.

Mr. Stephenson has been married thrice,—in 1852 to Margaret Stephenson. Four children, now living, resulted from this union. In 1873 he was joined in wedlock to Augusta Anderson. Three children survived their mother. In 1884 he wedded Elizabeth Burns. One son is the issue of this marriage.

J. W. Stephenson

Mr. Stephenson stands as the perfect type of generous, symmetrical manhood. All his life he has been an exemplification of all that is best in the human heart and soul. To the thoughtful student there is much to inspire with the fire of emulation. He is courteous and unostentatious to a marked degree. None is so poor as to be refused a kindly word from him. He is proud of his early labors, and delights to recall the days when with a broad-ax he, shoulder to shoulder with his men, attacked the virgin forests. He has now in his possession an ax-handle made by him in 1848, and which he used occasionally until 1877. Although possessed of great wealth, he never has indulged in outside show, but has preferred to live as "a man amongst men." As an illustration of his quiet, unostentatious manner, the following extract from a letter written to a friend by Hon. John D. Long, three times elected governor of Massachusetts, is quoted. Governor Long refutes an assertion that congressmen were spending money with prodigality and lived only for ostentatious show, cites instances that proved the assertion false, and continuing writes: "Walking out with Mrs. Long at sundown last evening, we passed a modest doorstep, on which, with his young children playing about him, sat a member who pointed to a plain suite of rooms as his lodging, and whose dress and manner of living are as unostentatious as those of a Plymouth county farmer, and yet he is a western lumberman, wise and broad-headed, and not ashamed, but proud, of the goad-stick which he wielded in his youth and with which he pricked his way to fortune."

Such is the biography of one of the most successful men of the northwest. He carved his way to fame and fortune unaided and alone, by constant application and hard work. Gifted by nature with a strong and rugged constitution, he led his men into icy streams and through unexplored forests, without injury. Blessed with a logical mind, and possessing a most remarkable memory, he was enabled to conduct large enterprises successfully, and his success is entirely attributable to hard and patient work, combined with a naturally well-balanced mind.

Samuel M. Stephenson, of Menominee, was born in New Brunswick, in 1831, and when but six years of age was in 1837 taken by his parents to the State of Maine. In 1846 Mr. Stephenson, then but fifteen years of age, went to Delta county, Michigan, and found work in a lumber camp, and for a number of the succeeding years was engaged in lumbering upon streams tributary to the Bay De Noquet and the northern end of Lake Michigan. In 1858 he went to Menominee, and in company with Abner Kirby built a mill containing a single mulay saw and a siding machine, which, operating a small circular, took cants from the mulay, and working automatically sawed them into boards. This machine was a great favorite in its day, and finds its counterpart in more recent days in re-sawing machines, which are finding great acceptance in lumber manufacture.

The Stephenson & Kirby mill was the commencement of the vast business later carried on under the name of the (incorporated) Kirby-Carpenter Company, and which now ranks as one of the leading manufacturing houses of the northwest, Mr. Stephenson's connection with which has been continuous to this time, the connection of Augustus A. and William O. Carpenter dating from 1861. The original mill had capacity for sawing not more than 2,000,000 feet per season, the later operations of the company, with enlarged facilities, reaching as high as 120,000,000 feet per annum, with an extensive shingle and lath production, and planing mills capable of dressing 250,000 feet daily. In this operation Mr. Stephenson was for many years in practical charge of the logging and manufacturing departments, his earlier education having well fitted him for filling these important positions. Upon the incorporation of the company in 1872, he was elected vice-president, an office which he still holds. (For more extended history of this company see earlier part of this chapter.)

While thus occupying a prominent and important position in connection with lumber manufacture, Mr. Stephenson is largely engaged in farming and stock raising, having a farm comprising 1,200 acres of which 700 are under cultivation; he is president of the First National Bank of Menominee, and is a large stockholder in the Stephenson Bank of Marinette, and in furtherance of the interests of the city of Menominee he erected the large hotel which is known by his name, and which while ranking among the best and most popular hotels of the west, is the recognized headquarters of all lumbermen who have occasion to visit the city. Mr. Stephenson was the first supervisor of the township after its organization, and was the first mayor of the city of Menominee.

Few men have been equally potent in shaping the politics of a locality or of a state, or exercised a greater influence in the national councils. At an early day elected a member of the County Board of Supervisors, he was for many years Chairman of that body and in 1877-8 represented the district in the lower house of the state legislature, and in 1879-80 as also in 1885-6 was elected a member of the state senate, in both of which bodies he at once commanded the highest respect and exercised controlling influence by reason of his business acumen and clear perception of questions concerning the interests of the State of Michigan as a whole, and the northern peninsula in particular. In the national campaign of 1880 he was chosen as a member of the state electoral college which cast its vote for the lamented Garfield, and was a delegate to the Republican National Convention of 1884 and 1888. He was elected to represent his district in the 51st, 52d, 53d and 54th Congress of the nation, and always by good popular majorities, and in this capacity rendered a service of the greatest benefit not only to his immediate constituency, but displayed an intelligent perception of the needs of the nation at large, which speedily won for him the confidence of his fellow congressmen, and an influence among them which was exercised with a wisdom and discretion most beneficial to the national interests, while looking with keen eye to the more immediate interests of the great northwest. Especially was he successful in securing the improvement of the harbors, rivers and water-ways connected with the great lake region, with the wants of which he had been familiar from his youth, rendering his membership upon the committee on rivers and harbors of the greatest advantage to the lake marine, and to the localities more immediately affected. He was an active and influential advocate of the building of the Hennepin canal, designed to connect the great lakes with the Mississippi river and the Gulf of Mexico, wisely discerning the beneficial results to the nation which must accrue therefrom. He was also a useful member of the Civil Service Committee, and upon that of Mines and Minerals, being thoroughly conversant with the mining interests of northern Michigan and through this knowledge, being intelligently alive to the interests of all the mining sections of the nation.

Mr. Stephenson is pre-eminently a man of the people (a characteristic, indeed, which inheres to lumbermen generally, by reason of their intimate association with all classes of men), and while moulded in nature's workshop, and to the stranger appearing perchance brusque and abrupt, the confidence of all classes of the community, and the affection of those who have remained in his employ through a long series of years, attest a character in which kindness of heart and consideration for the welfare of those about him are pre-eminent traits.

Socially Mr. Stephenson is most genial; he is a member of the Masonic fraternity to the 33d degree, and while not a church member, his family are of the Presbyterian faith, and he is a liberal contributor to the needs of the religious bodies on both sides of the Menominee river, and a hearty coadjutor with his estimable wife in the forwarding of all good works.

He was married in 1858 to Miss Jane Harris, a native of Wales, who reached this country with her parents when but a child. Of the eight children born to them Emma C., Elizabeth W., Nellie J., Clara M. and Hattie L. survive, Samuel E. having died at the age of twenty-eight years, Jane in her childhood and Jessie in infancy.

While the lumbermen of the northwest as a whole have been the leading factors in the development of the country, Mr. Stephenson deserves pre-eminent mention as one who, to more than an ordinary degree, has been a leading factor in developing not only the lumber interests but has been in the foremost rank of those who have labored diligently for the advancement of the political and moral influences which make a great state and nation.

Nelson Ludington.—The northwest was peculiarly fortunate in her pioneers in all departments of endeavor, and especially fortunate in her pioneers in the lumber trade. They were a grand galaxy of sturdy spirits, as venturesome as it is given to careful business men to be, some of them so far-seeing that their faith in the west and its future was almost like the faith of the fathers in the predictions of the prophets of old. One of the most enterprising of them all, one of the most careful in planning, one of the most painstaking in execution, one of the most prophetic in regard to Chicago and the west and their great development in the years to come, was Nelson Ludington, who became identified with the trade nearly fifty years ago, was signally successful during a long period in the management of a gigantic business, and died leaving a personal record which is inseparable from the history of the whole western country in which he was at once a figure and a foster, after having lived long enough to participate in Chicago's glory and look about him proudly upon the ever expanding fruition of his faith and his labors, and of the faith and labors of other spirits such as his.

The progenitor of the American branch of the family of Ludington was William Ludington, who settled in Charlestown, Mass., in 1680. Col. Henry Ludington, who removed from Bradford, Conn., to Putnam county, N. Y., was the grandfather of Nelson Ludington. Col. Ludington was conspicuous in New York during the revolutionary war and was commissioned by the provincial congress and later by Gov. George Clinton, and given command of the militia of that part of the country, and in that capacity he co-operated with the patriot army, and was efficient and valuable as a counsellor of Washington above almost any one else in that section, and his spacious old mansion was the real headquarters of the commander-in-chief of the colonial forces during a great part of the year 1777, though his headquarters were nominally at Fredericksburg, not far away. Since then, time has wrought many changes in all that country, and among them the change of the name of Fredericksburg to Kent, and the christening as "Ludington" of the patriot colonel's historic old home, which came in time to be the nucleus of a little village, and in honor of the man who first settled there and gave the place a name in history by his deeds and his distinguished associations. In that old country house, many conferences were held and many plans were made which resulted advantageously to the cause of the colonies. In the "History of New York" by Martha J. Lamb, it is stated that Col. Ludington at numerous times thwarted the careful scheming of Gen. Howe, and that this so exasperated the British commander that he set a price on the colonel's head. As a consequence, the patriot's life was sought by tories, who on one occasion surrounded the historic old house in large numbers and would doubtless have effected his capture but for the bravery and presence of mind of his daughters Sibyl and Rebecca, who were standing guard with guns in their hands and discovered the enemy in time to baffle their plans by an ingeniously conceived and intrepidly executed deception. Sibyl Ludington it was who, just after the British forces had raided Danbury, Conn., rode all night on horseback to arouse Col. Ludington's regiment of "minute men," and whose daring achievement has been embalmed in history, story and song.

At that old family home of such precious associations, Nelson Ludington was born, January 18, 1818, and there he passed his boyhood days, receiving his primary tutelage in such schools as were afforded at the time and place. A course of study at the Tucker Hill academy, in Duchess county, completed his education so far as schools were concerned, but it cannot be said of such a man as Mr. Ludington that his education was ever completed, for he was not one to be satisfied with imperfect attainments, his present was never so bright to him as the promise for his future, and he was all his life long a diligent reader, a student of events and a diviner of the peculiarities of men. It was in a little old-fashioned general store at Cold Spring, N. Y., that his business experience began, but he soon went to New York City, then the Mecca of every ambitious youth in America, as Chicago is now, and for a time was employed as a clerk in a dry goods store. Among the early merchants of Milwaukee were Ludington, Burchard & Co., a firm constituted of Mr. Ludington's uncle, Lewis Ludington, his brother, Harrison Ludington, and Harvey Burchard. In 1839, young Ludington became a clerk in the general store of this company, and two years later he was enabled to buy the interest of Mr. Burchard, and the name of the firm was changed to Ludington & Co. In 1848, Mr. Ludington sold his interest in this store, and forming a partnership with Hon. Daniel Wells, Jr., and Jefferson Sinclair, embarked in the lumber trade, the style of the firm being N. Ludington & Co. As noted in the detailed histories of Marinette and Menominee, Nelson and Harrison Ludington, in association with Daniel Wells, Jr., and Jefferson Sinclair, (the two latter having mills at Escanaba so early as 1846) formed the N. Ludington Co., and in 1857 purchased the Sinclair & Wells business, and in 1858 Isaac Stephenson of Menominee purchased a one-quarter interest in the business which had been established at Chicago, and a business was established at Marinette, under the name of Isaac Stephenson & Co. In 1863, Anthony G. Van Schaick bought a one-eighth interest from Harrison Ludington, and in 1867 A. C. Brown purchased a one-eighth interest from Mr. Stephenson, who subsequently (1868) purchased the entire interest of Harrison Ludington and Mr. Van Schaick, and "The N. Ludington Company" was incorporated, and still continues, Nelson Ludington being president of the company until his death in January, 1883. The manufacture of this company has averaged through a long term of years no less than 25,000,000 feet of lumber, with 10,000,000 shingles at the Marinette mills.

The lumber trade of this region was in that early day in its infancy. There was little in its status then to invite the investment of capital. The west was only beginning to develop, and at that time it required something more than ordinary prevision to see into its great future and the future of the lumber trade dependent upon it. The cut of the mills was necessarily of a character limited to the growth and demands of a nation over which in the earlier period the shadow of war was hanging, and at the date of the N. Ludington Co. was but just recuperating from its baneful effect. Mr. Ludington saw not alone the possibilities of the west, but those of the northwest as well, for he and his associates were favorably located to supply lumber to both markets, and increased their facilities accordingly. In the daring enterprises of the firm, Mr. Ludington was the acknowledged leader. He proceeded to act upon his convictions by acquiring considerable bodies of fine timber lands, and establishing mills at Escanaba and Marinette, Michigan, thus enabling the firm to go extensively into the manufacture of lumber.

The principal docks and lumber yards of the company were at Milwaukee, until 1851, and even at that time the tide of enterprise was beginning to roll in upon Chicago from all parts of the country tributary to it, and Mr. Ludington and his associates decided to establish, under Mr. Ludington's personal supervision, what they intended to be a branch of the business in Chicago. It required only about three years to demonstrate Chicago's superiority to Milwaukee as a lumber distributing center. Before half that time had elapsed, Chicago was the headquarters of the entire business of the firm, and at its expiration, the office and yards at Milwaukee were abandoned, and in 1854 the enterprise was, to all intents and purposes, wholly a Chicago one. As such, it grew with a rapidity far beyond the most brilliant anticipations of its promoters. The great business was conducted as before under a simple partnership arrangement until 1868, when a long-cherished plan was adopted of incorporating the concern under the style of the N. Ludington Company. Of this heavily capitalized corporation Mr. Ludington was chosen president, and he retained that office until his death, fifteen years later. During the period of more than a third of a century Mr. Ludington was the executive head of the firm and of the corporation which bore his name, a company and a corporation which won a degree of success almost unexampled in the lumber trade of Chicago. During its long career, in times of financial calm and in times of financial storm, the concern of which Mr. Ludington was the head never failed in one instance to meet its obligations, and fully satisfied any and every demand upon it, and its credit was so high that at times it was able to carry other concerns through periods of threatened ruin.

Mr. Ludington, in a splendid way, combined the qualities of the great merchant with the qualities of the great financier, for his success as a merchant was no more conspicuous than his success as a banker. Upon the organization of the Fifth National Bank of Chicago, in 1863, he was chosen one of its directors, and ten years later his services for the benefit of that institution were recognized by his election to its presidency, a position which he retained until the charter of the bank expired by limitation in 1872, when he became one of the directors of its successor, the National Bank of America. Living in an era of speculation, with ample capital to invest, constantly tempted to speculate, he was no speculator. All his operations were planned with the greatest precision, and beyond the legitimate risk of trade nothing was left to chance. Beginning his career as a western business man with a cash capital of only $35, he pushed his enterprises persistently and with rare good judgment, until his transactions reached up into the hundreds of thousands annually, and during all the long time consumed in the achievement, and amid all the vicissitudes of competition and changing conditions, there never was a day when he did not know almost to a dollar how his affairs stood; and, informed as to the realities of the present, he made few mistakes, and none of magnitude, in calculating the probabilities of the future. The strictest probity and integrity were no less distinguishing characteristics of his business career than his conservatism, and in all of his associations with his fellows he was the peer of any of the pioneer merchants of the west. The estimate placed upon him by his competitors and contemporaries in business was expressed at the time of his death, which occurred January 15, 1883, in the following extract from a series of resolutions passed by the Chicago Lumberman's Exchange, which attended his funeral as an organization: "Our circle has been deprived of one wise in counsel, enterprising in spirit, diligent in business, and a citizen whose example was worthy of the emulation of those who are yet early in the pursuit of success in business life, and who are seeking successful models for their guidance." Resolutions of like tenor, some of them more emphatically expressed, were adopted by the board of directors of the National Bank of America, by the Chicago Clearing-House Association, and by other important corporate bodies. Such tributes are paid only to men of the highest standing, the most praiseworthy achievements and the most shining reputation.

Mr. Ludington was little inclined to publicity except in an unavoidable business way. His disposition was extremely modest and retiring, and he studiously avoided all ostentation, devoting himself entirely to his home and his family in his hours of relaxation from the cares of the great enterprises to the successful conduct of which he gave the best years of a true and noble life. The surviving members of his family are his widow, Mrs. Charlotte J. Ludington, and his daughters, Mary L. Barnes, wife of Charles J. Barnes, of the publishing house of A. S. Barnes & Co., New York and Chicago, and managing director in Chicago of the American Bank Company, and Jennie L. Young, wife of George W. Young, a capitalist of this city. The interests of his estate center in Chicago, and one of the notable business blocks of the city is known as the "Ludington Building." The latter years of his life were marred by ill-health, but he never lost his geniality or the tranquillity that is the reward in advancing age of a life well spent. Accompanied by his wife, he traveled quite extensively in this country and abroad in quest of health, but that which he sought was not vouchsafed to him, and with a heroism born of a knowledge of a life as nearly blameless as mortal life may be, and the hope of immortality which was his through faith, he resigned himself to the inevitable, and passed away, regretted a thousand-fold more than regretting.

Anthony Gerard Van Schaick.—To the conscientious historian no task is more difficult than that of doing justice without exaggeration or fulsomeness to the memory of one who has held the position of an honored friend, not to the historian alone, but to an entire community. When a man's virtues have been of that exalted nature which silences the voice of criticism, and commends him as not only an upright business man, but as an intelligent, far-seeing and useful citizen, it is meet and proper that in a history of the particular branch of commercial activity to which the best efforts of his life had been devoted, such a man's character should be enlarged upon, that his salutary example may stand for the guidance and emulation of later generations.

Such a man as is described above was Anthony G. Van Schaick, for many years the practical head of the Ludington, Wells & Van Schaick Co. of Menominee and Chicago. A descendant of one of the old patrician families of the Mohawk Dutch, whose early settlement of the Hudson river and the Mohawk valley united the colonies of America with the ancient manorial customs of Holland, and established customs which with the lapse of time, even under Republican institutions have not become wholly obsolete, their descendants are still noted for courtly bearing and superior intelligence.

Mr. Van Schaick was born on Van Schaick island near Troy, New York, November 13, 1829. His education at an academy in Waterford, N. Y., terminated when he was but fourteen years of age, and he at once entered as clerk in a country store, and began the business education which developed so great intelligence and activity in his later days. In 1849 he turned his face westward and entered the mercantile employ of N. Ludington & Co. of Milwaukee, as a clerk. The firm was also engaged in the manufacture of lumber at their mills at Menominee, Mich., and in 1853 the young man who had proved so efficient in the store, was inducted into the mysteries of the rapidly increasing lumber business of the firm, and six years later in 1859 he was placed in charge of their yard in Chicago, and soon after was admitted to a partnership, and the firm became N. Ludington & Co., the business management devolving almost wholly upon Mr. Van Schaick.

In 1867 Mr. Van Schaick sold out his interest in this company to Isaac Stephenson, and became junior partner with Harrison Ludington, Daniel E. Wells and Robert Stephenson, in the house of Ludington, Wells & Van Schaick, which in 1874 was incorporated as the Ludington, Wells & Van Schaick Company. Of the original members of this well-known house, only Mr. Wells still survives, but the company still exists, and continues its extensive operations at the Menominee mills and Chicago yard, in the interest of the heirs of the original stockholders, the Chicago business being in the hands of O. B. Barker, an old and trusted employe of the house, still maintaining its large trade and well-earned reputation. During the entire period, from the establishment of the firm until his decease in October, 1891, Mr. Van Schaick, was manager of the Chicago business, and for many years of the extended operations of the company, in the purchase of timber lands and the manufacture of lumber at its mills at Menominee, filling the offices of secretary, treasurer and vice-president, his position in the company calling him also to various other responsible positions in other avenues of business, in which his company was largely interested. He was vice-president of the Marinette Barge Line, a director in the Continental National Bank, vice-president of the Joliet Mound Drain Tile Co., director in the Menominee River Boom Co., the Vessel Owners' Towing Co., and president of the First Regiment Armory Association of Chicago. He was president of the Lumberman's Exchange of Chicago in 1872 and again in 1881, holding the office of treasurer for five years from 1869 to 1874 and again from 1875 until his election to the presidency in 1881, and later for the three years

1884-5-6. During all these years it is safe to assert that he did more to unify and sustain an interest in the organization than any other member of the Exchange, frequently advancing needful means to its exhausted treasury. When he became interested in a person or organization, it was in no half-hearted manner that Mr. Van Schaick manifested that interest. It was the good fortune of the historian to assume the duties of secretary of the Exchange at the time, when in 1881, Mr. Van Schaick became its president for the second time, and if there was added eclat and interest evoked among the membership at that time, the credit was due to the intelligence and masterful comprehension of the value of the organization to the trade of the city, and the hearty interest of Mr. Van Schaick in its work. No man had a deeper comprehension of the value of statistical data, and it is safe to add that none equalled him in the acquisition of useful statistics of the conditions of the lumber trade of the nation, whether in regard to the volume of standing timber, the extent of production, or the relative conditions of the trade as regulated by supply and demand.

Mr. Van Schaick was a ready speaker, and a most entertaining and instructive conversationalist. A good listener, his active mind quickly absorbed the salient points of an argument, and his ready tongue was at all times prepared to present those conclusions which his active brain most readily and intuitively formed, brushing aside sophistries of argument and reaching directly to the kernel of his subject. His administrative ability, combined with a uniformly wise judgment, led him no less to be sought as a leader and guide upon matters pertaining to the interests of the trade, than as an arbiter in commercial disputes. In the great strike of 1886, known as the "Haymarket Massacre," and in which the laborers in the lumber yards participated, Mr. Van Schaick was called to the chairmanship of the Committee of Safety, created by the lumber dealers, and his management of this matter won for him so reat applause that earnest endeavor was made to continue the committee indefinitely in the interest of the city at large. As to the practical results, it is but necessary to say that there has been no concerted strike in the lumber district since that day.

Not alone at home was the remarkable character and ability of Mr. Van Schaick recognized and admired, but upon the organization of the Lumber Manufacturers' Association of the northwest in 1882, an association comprising the manufacturers of Michigan, Wisconsin, and the Mississippi valley, there was no dissenting vote to the motion to place Mr. Van Schaick at the head of the organization, an office which he held for three years, and until other pressing cares led him wisely to decline further service.

No man was ever less free from bigotry and intolerance; a Republican in politics, he had the highest respect for a man of opposite political views, if convinced that they were the result of sincere and intelligent conviction. Broad in his mind, he welcomed intelligent discussion upon any and all subjects, whether of politics, religion, commerce or social conditions. A demagogue was his detestation, and upon all subjects concerning the welfare of the city he was outspoken in denunciation of wrong, and equally strenuous in commending what he believed to be right. He was a firm friend to the military organizations of the city, believing that even under our republican form of government, there were dangerous classes, who could be kept in restraint only by the realization of the ultimate results of a contest with the military power. Open-hearted, the appeal of worthy poverty was never passed unheeded, while the intuitively discerned fraud seldom cared to brave his denunciation for a second time. Urbane and suave in general manner, his greetings were equally hearty to wealth or poverty, and he was never too busy to forget the amenities of life. Too often he paid the penalty of his courteous nature, in the late hours of labor necessitated by the many interruptions, as it was a business principle to remain at his desk until the day's duties were fully performed, and none of to-day's work left for to-morrow.

In 1851 Mr. Van Schaick was married to Miss Georgiana Porter of Milwaukee, who was taken from his side in 1871, leaving three children, Charles, Frances and Georgiana; of these Frances alone survives. In August, 1872, he was united in marriage to Miss Ellen Ludington, daughter of his partner, ex-Governor Harrison Ludington of Milwaukee, and the union was blessed by four children, Harrison Ludington, Ellen, Gerard and Arthur Patton, all of whom survive to mourn with their estimable mother the loss of a fond parent and exemplary husband.

The death of Mr. Van Schaick at Denver, Colorado, was at once a surprise and severe shock to the lumbermen of Chicago and the public generally. It was well known for several months that he was ailing, but the general supposition attributed it to overwork, which it was hoped would be antidoted by a season of rest. In 1890 he took a European tour, and the trip seemed greatly to benefit him, and on his return he again plunged into business affairs. During the spring of 1891 he contracted a severe cold, and in August went to Colorado upon suggestion of his medical advisers, but the bronchial affection which speedily developed into consumption made rapid progress, yet not so marked as to lead to serious apprehension until within a very few days of his demise. The remains were brought to Chicago and hence to be interred in Forest Home Cemetery, Milwaukee, and we venture nothing in the assertion that no man was ever followed to the grave with more sincere feelings of personal affliction, than was experienced by the large concourse of business associates, whose tears were mingled with those of the afflicted family. Mr. Van Schaick was a warm adherent of Grace Episcopal Church, a warden for many years, and a devoted friend in seeking its prosperity and advancement. He was also a member of the Calumet and other social clubs, but his home life presented superior attractions to all other interests. He has left a heritage of the highest value, in the esteem of all who knew him as the faithful husband, fond parent, honest and progressive merchant, and useful citizen.

Harrison Ludington of the well-known house of Ludington, Wells & Van Schaick, was born at Ludingtonville, Putnam county, New York, July 30, 1812, where his father, Frederick Ludington, was for many years a merchant. His grandfather, Col. Drury Ludington, was, during the revolutionary war, appointed Captain, by Gov. Tryon, and later in 1778 received a colonel's commission in a New York regiment from Gov. Clinton. That a price was fixed upon his head by the British during the revolutionary war, evidences important service to the American cause.

Harrison Ludington was educated at the common schools of his native village, and at the age of twenty-six decided to accompany his uncle, Louis Ludington, to the now developing west, and began the business career which subsequently made him a noted man among the lumber manufacturers and merchants of Wisconsin and Chicago, and no less a prominent figure in the politics of Wisconsin. In 1838 he became the successor in business of Solomon Juneau, Milwaukee's first white settler, and carried on general merchandising for the next thirteen years in company with his uncle Louis and Harvey Burchard. In 1851 he withdrew from merchandising to engage with Daniel Wells, Jr. and Robert Stephenson in the manufacture of lumber, their mills being located at Menominee, Michigan. In 1866 the firm began business in Chicago, and in 1867 Augustus G. Van Schaick becoming a member, the firm became Ludington, Wells & Van Schaick, which was soon after incorporated as the Ludington, Wells & Van Schaick Co., and has continued in business under the same designation to the present time, the venerable Daniel Wells of Milwaukee being the only surviving (original) partner, while the stock of the company is continued in the estates left by the deceased members. Few of the lumber concerns of the northwest can point to a larger business than that which was by this company developed in the acquisition of pine lands and the manufacture and sale of lumber, the results of more than a quarter century showing a record of fully 750,000,000 feet of manufacture and sale. Mr. Ludington has not for many years taken an active interest in the affairs of the company, which were handled by A. G. Van Schaick until the death of the latter in 1892.

Of late years Mr. Ludington had figured more prominently in politics, than in business activities. Originally a Whig, he on the decadence of that party became a Republican, and while not desiring office, his acknowledged business abilities, good sense and courage to boldly express his sentiments, even in a city which was overwhelmingly Democratic, led to his election as alderman in 1861, and his re-election for the second term, and in 1871 to his election as mayor and re-election in 1873, holding the office until 1876, when he resigned to assume the duties of governor of the State to which office he was elected in November, 1875. His personal popularity is evidenced by the defeat of every Republican associate upon the State ticket in that campaign. His administration was marked by the same business ability which charcterized his personal affairs, and declining a second nomination he retired from political life with an unstained reputation, and the plaudit of political foes and friends alike. Subsequent to his political retirement, his time was employed in the construction of business blocks in Milwaukee and the care of his valuable city property, with but a casual attention to his extended business interests in the lumber line, leaving these to the management of Mr. Van Schaick and others. The personal and moral courage of Mr. Ludington, combined with energy, integrity, honesty, firmness and good judgment, were the strong factors which contributed to his success in all his undertakings. He was averse to speculation, believing that strict business methods would best promote his interests, and the same convictions were manifest in his political career, his methods being only such as were legitimate and conducive to good citizenship. He brought the first seed wheat from the east to Milwaukee and purchased the first load of grain sold in that city, carrying the sacks which contained it, upon his shoulders, to the upper story of his warehouse where he stored it. He had unbounded faith in a region which he had selected as the arena of his life's activities, and was foremost, whether as merchant, manufacturer or politician in advocating and advancing all measures looking to its advancement. Although personally at no time a resident of Chicago, his name is indissolubly connected with the development and progress of the city and its lumber business. Mr. Ludington was married March 25, 1838, to Miss Frances White of Louisville, Ky., who bore him several children. His second wife was Mrs. E. M. Tobey to whom he was married June 7, 1875. His two sons, Frederick and Harrison, and four daughters, Mrs. James E. Patton, Mrs. Edward Elliott and Mrs. F. H. White, all of Milwaukee, and Mrs. A. G. Van Schaick of Chicago, were present when he peacefully passed from earth. He left twenty-two grandchildren and one great-grandchild to share the heritage of an honored name. Mr. Ludington died at Milwaukee, June 16, 1893, aged 83 years.

William Owen Goodman.—William O. Goodman of the extensive lumber house of "Sawyer Goodman Company" was born September 24, 1848, at Wellsboro, Tioga county, Pennsylvania. Like many other Chicago lumber dealers he may be said to have inherited the lumber business from his father, Owen Bruner Goodman, for many years a successful lumberman in the formerly extensive lumber districts of Pennsylvania, the business traits and heritage of a good name for which the father was distinguished, having been perpetuated in the son. The death of the father when William O. was but an infant of a few weeks old, compelled the widowed mother to return with her little family to her own parents at Columbia, Pennsylvania. Here the subject of our sketch was favored with an education of better than the ordinary character, being such as was afforded by the Columbia Institute and the Ely Institute of Athens, both of Pennsylvania, and standing high in his classes, with a sound practical as well as theoretical education, he was fitted for the successful business career which has marked his later life. In 1866 at the age of eighteen he began working for his uncle General Horace Williston, a prominent lumberman of Athens, Pennsylvania, where he remained for two years, gaining that practical knowledge of the lumber trade which paved the way to the successes of his life. In 1868 he came to Chicago, even at that time a city

E. Golden Filer

of great and recognized possibilities in which to as great an extent as at any later period there was a demand for active, energetic, far-seeing and enterprising men of push and virility. The war was over, and the marvelous activities of the succeeding years in which the National wound was healing with a healthy intent, was resulting in a growth and development of the great west, in which Chicago made demand for the alert, ready and able business man, bold to incept and ready to take advantage of every favoring turn of business. Here Mr. Goodman's well-trained activities and business acumen found a congenial field and he secured employment with Spalding & Porter, (afterward Sawyer, Houghteling & Johnson), lumber dealers, which firm afterwards became the Menominee River Lumber Company, now owned and conducted by Hon. Jesse Spalding. Serving for one year as bookkeeper, he was promoted to the position of salesman and buyer for the mill, and a little later represented the extensive interests of Hon. Philetus Sawyer in the same company. Mr. Sawyer was then a prominent business man and has since represented the State of Wisconsin for many years in the Senate of the United States. In October, 1878, Mr. Goodman formed a still closer alliance with Mr. Sawyer through his marriage to Miss Erna M., daughter of the Senator. In this year the Sawyer, Goodman Company was organized and a general lumber business transacted, both in the manufacture and sale of lumber, logs and timber. This company was composed of Hon. Philetus Sawyer, his son Edgar P. Sawyer, James B. Goodman and William O. Goodman, all the parties being lumbermen of practical experience. In 1880 articles of incorporation were filed and without change of name, the company elected Philetus Sawyer, president; Edgar P. Sawyer, vice-president; James B. Goodman, secretary, and William O. Goodman, treasurer, with the management of the business at Chicago. The business which had already attained large proportions received a new impetus, and with a steady growth has become one of the largest of the many extensive lumber operations of Chicago and the northwest, the company handling annually about 75,000,000 feet of lumber, largely of its own manufacture, in modern mills of the largest capacity in Michigan and Wisconsin, with vast forest resources in both states, from which to obtain supplies for many years to come. Their distributing yards in Chicago rank with the most extensive, having over 1,000 feet of dock front on the river, and trackage in their yards for loading fifty cars per day. In 1880 the firm of C. H. Bogue & Co. was organized to do a general lumber business in Chicago and the northwest, it being composed of C. H. Bogue, James B. Goodman and W. O. Goodman. The new company established a number of branch yards throughout Illinois, Nebraska and Iowa, and continued until 1883 when the Goodmans retired from the partnership. In all the business of the several houses mentioned Mr. W. O. Goodman has held prominent and most responsible positions, filling the important office of treasurer and financier from the inception of each company or organization. His experience and ability, coupled with excellent judgment and an integrity of character which ensured him the highest confidence of not only his business associates, but of all who had dealings with him, have been no inconsiderable factors in the business of the companies, the practical management of which has to so large an extent fallen upon his shoulders. Although but in middle life Mr. Goodman has accumulated a comfortable fortune and enjoys life in the society of his wife, and son Kenneth S., while conscious of being surrounded by a large circle of true and trusty friends. Mr. Goodman is a careful student and takes deep interest, not only in passing events but in the collection of relics and reminiscences of past days, and his collection of antiquarian curiosities, relics and bric-a-brac, is said to be extensive. He attends the Presbyterian Church, is a director of the Royal Trust Company and of the Industrial Bank of Chicago, and finds social recreation in several city clubs including the Union league, Washington Park, Calumet and Athletic. As a member for many years of the Lumbermen's Exchange, Mr. Goodman has served several terms as a director and upon important committees to the utmost satisfaction of his associate members. Mr. Goodman is secretary and treasurer of the Marinette Lumber Co. of which the house of Sawyer, Goodman Co. are principal stockholders, and for many years held the position of vice-president of the Quinnisec Logging Co. of Marinette, of which he is now secretary and treasurer. One of the finest vessels on the lakes, built some years ago, of the finest oak from the Wisconsin forests, bears the name of W. O. Goodman. She is a schooner of large capacity belonging to the fleet of Capt. Johnson, a well-known vessel owner of Chicago, and has proved like her namesake a credit to the lumber trade. Thrown upon his own resources at a tender age, Mr. Goodman is an example to young men of that success which is attainable through a life of energy, integrity and devotion to the chosen calling of life, an example well worthy of imitation in its blessing not only to himself and his immediate family, but in its moulding influence upon those who have been his associates and companions both in business and social circles.

James Bruner Goodman was born in Potter county, Pennsylvania, in the pine woods "alongside a saw mill" about fifty years ago. He was the son of Owen Bruner Goodman, a lumberman at Pike Mills. His father died when James B. was about seven years of age, and his mother removed to Columbia with her three children; and there the boy was afforded the advantages of private schools and the academy until he was fourteen years of age. In these youthful years he spent much time in the saw mills and lumber yards of the town, and learned the rudiments of the lumber business. On leaving the academy he entered a newspaper office and was for some time engaged as a reporter and general writer, for which he had developed aptitude. He next entered the employ of his uncle, Gen. Horace Williston, a lumber manufacturer at Athens, Pa., but again returned to journalistic work as assistant editor of The Steuben Courier. At the breaking out of the war in 1861 he was editor of The Williamsport Bulletin. He then enlisted as a private in a Pennsylvania regiment. Serving in the Army of the Potomac, he was several times promoted and was honorably discharged with his regiment in 1864. On being mustered out he assisted in raising a new regiment, but had some misunderstanding about his official position and returned to civil life at Athens. He had flattering offers of command in other new regiments but having made business contracts he declined further commissions. He served for a time as auditor of the North Pennsylvania Canal Company and with its successor, the Lehigh Valley Railroad, but lumber had the greater charm, and in 1867 he went to Chicago to represent the interest of Charles F. Welles in the firm of Welles & Spalding. The following winter Mr. Welles sold to H. H. Porter, who after some years' successful lumbering sold to Spalding, Houghteling & Johnson, the predecessors of the Menominee River Lumber Company. Before this Mr. Goodman had become associated with Mr. Porter in the firm of Porter & Co., lumber manufacturers, with a mill at Onekama, Michigan, and continued the business until in 1873 the mill and remaining timber was sold to A. W. Farr & Co. Meantime in 1869 Mr. Goodman became associated with his brother W. O. Goodman and C. H. Bogue, in the firms of C. H. Bogue & Co. and Goodman Bogue & Co., who for many years ran lumber yards at many points in Illinois, Iowa and Nebraska. This continued until in 1878 the Goodmans withdrew from the Illinois yards, but retained their interest in Nebraska until 1887, when they sold all their retail yards to C. H. Bogue & Co. In 1878 the Sawyer Goodman Company was established in Chicago by Philetus Sawyer, James B. Goodman, William O. Goodman and Edgar P. Sawyer, with mills at Menekaune, Wisconsin. In 1881 the firm became incorporated under the laws of Wisconsin; Philetus Sawyer, president; Edgar P. Sawyer, vice-president; James B. Goodman, secretary, and William O. Goodman, treasurer, and so continues. In 1882 the Marinette Lumber Company was organized with James B. Goodman president and William O. Goodman secretary and treasurer. In 1891 the Quinnesec Logging Company was organized with James B. Goodman president, and built about twenty-five miles of railroad from the Menominee river, opposite Iron Mountain, southwest to three townships of timber lands the property of the Marinette Lumber Company. Because of his business interests Mr. Goodman removed his personal residence from Chicago to Marinette some years ago, and is still a resident of that city, but spends much of his time in the Chicago office, where in connection with his lumber interests, his firm Jas. B. Goodman & Co. does a large business in real estate, the accumulation of which began in 1871 and includes many tracts in Michigan and Wisconsin, besides Chicago city and suburban property. Mr. Goodman is interested in the Menominee River Boom Company, which he helped to organize in 1889. He is secretary and manager of the Wisconsin & Michigan Construction & Manufacturing Company, and is president of the Peninsula Iron & Lumber Company. Both these companies are large owners and operators of timber lands; Sawyer Goodman Company and Marinette Lumber Company are timber land owners and lumber manufacturers; Jas. B. Goodman & Co. are operators in timber, mineral and farm lands. These with other interests make an aggregate of affiliated business which Mr. Goodman never neglects, though the organization is so complete that he can leave it to run on while he travels to the ends of the earth. He claims to be a Presbyterian, is known to be a club man, and in the words of Dana's celebrated description "is a good man weighing two hundred pounds."

John W. Wells.—Success in business carries with it the natural inference that the successful man possesses energy, intelligence and other attributes of men who have risen above their fellows. But energy and intelligence fail to make one shine forth in a social sphere, unless they are united to an exceptional personality. It is temperament that makes a man either liked or disliked. Mr. John W. Wells, late mayor of Menominee, is happy in this respect, for his fine and distinctive personality is what makes him what he is, and his friends are legion. He is a native of Davenport, Iowa, born March 30, 1847. The Wells family is of English origin, the first member settling in this country as early as 1635. This family was among the first settlers of Maine and the town of Wells in that state was named in its honor. Grandfather, Richard Wells, was a ship captain and vessel owner. He was born in the Pine Tree State, as was also his son Alexander, the father of our subject. Alexander Wells first saw the light in 1816. He was educated at Bowdoin College and a man of more than ordinary ability and learning. In 1837 he turned his face toward the setting sun and settled on a farm in Iowa, that state being then a territory and considered very far west indeed. There he married Miss Julia A. Carter, a native of Indiana, born in 1820, and there passed the remainder of his life, with the exception of the time spent in the civil war. When war broke out he was Lientenant of Volunteers and died while in service, in 1863. Mrs. Wells is now a resident of Menominee. Her father was a native Virginian and a representative of one of the prominent families of that state. He was a Captain in the Mexican war and a member of the Iowa Territorial Legislature. To Alexander Wells and wife were born seven children, six of whom are now living, Mary, wife of William Hollenbach; Alfred C., a veteran of the Civil war who was a non-commissioned officer in the Second Iowa Cavalry and who served four years; John W. (subject); Sarah A., wife of William Lanphere; William F., and James L. The mother is a worthy and most consistent member of the Methodist Episcopal Church, as was also her husband. The latter was a strong advocate of Republican principles and an early Abortionist. For many years he served as Justice of the Peace and postmaster and was a popular and influential member of society. During the first twenty years of his life John W. Wells assisted his father in the duties of the farm and attended the common schools of the neighborhood. Later he took a commercial course, and then spent one year in Wisconsin, where he remained until twenty-one years old. From there he came to Menominee, Michigan, filled a position as bookkeeper for two years, and then became interested in the lumber business at Oconto, Wisconsin, remaining there until 1875. Then moving the plant to Menominee, he has since conducted an extensive business at that place. The company, of which he is a prominent and influential member, is known as the Girard Lumber Company, and he is its vice-president and general manager. Besides the property at Menominee, the company also owns a mill at Dunbar, Wisconsin, 40,000,000 feet of lumber being the annual output of the two mills. Mr. Wells is also interested in the Bird & Wells Lumber Co., at Wausaukee, Wisconsin, being president of that company, the cut of the two mills of the company and that of the Bird & Wells company amounting to 57,000,000 in 1897. Mr. Wells is also president of the Menominee Iron Works and vice-president of the Lumberman's National Bank of Menominee. He is thorough and practical in all his business relations and his brains and energy have placed him in the front ranks of successful and influential business men. Although deeply interested in all that pertains to his business, Mr. Wells is also a loyal citizen and is active in all good work. He was married in 1874 to Miss Isabella Crawford, a native of New Brunswick, Canada, and a daughter of Daniel Crawford, a Scotchman. They have six children: Florence A., Daniel, Artemus C., Alfred T., Edna B. and Ralph W. Mrs. Wells is united with the Presbyterian church. Socially Mr. Wells is a Mason, a member of the Blue Lodge, Chapter and Commandery. He is also a member of the Mystic Shrine at Grand Rapids. In politics he is an ardent Republican. He has served as a member of the city board of supervisors, has been a member of the city council two terms, and has served his third term as mayor of Menominee.

William Holmes.—The career of this gentleman has been marked by steady upward tendencies. Having an astute vision, clear head and good health, his enterprises have been carried on with energetic application and determined purpose, and have yielded him good returns. He is the present mayor of Menominee, Michigan, and one of that city's most worthy citizens. His father, James Holmes, was a native of Scotland but when a young man emigrated to New Brunswick where he reared a family of eleven children and where the remainder of his days were passed, his death occurring in 1858. It was in New Brunswick that William Holmes was born April 16, 1830, and there made his home until seventeen years old. From there he went to the lumber regions of Maine, but a few years later, or in 1854, made his way to Green Bay, Wisconsin. Later he went from there to Escanaba, Michigan, where he entered the employ of the N. Ludington Lumber Co. In the fall of 1858 he located in Menominee, Michigan, and did a jobbing business in lands for Abner Kirby. One year later the firm of A. Kirby & Co. was formed, and three years later this was merged into what is now the well and favorably known Kirby, Carpenter Co. For a third of a century Mr. Holmes has been connected with these concerns, and the force of well directed energy, unceasing effort and decided purpose on his part has had much to do with the great success of the Kirby, Carpenter Co. He has charge of the lumber woods for the company, but has always done a jobbing business in lumber himself. In connection with a son he owns a logging railway which extends forty miles from Muscauana Island northwesterly, and delivers logs to the Menominee river. Mr. Holmes has spent a lifetime in the lumber business and few men are better posted on this subject than he, yet not as a simple hewer of wood but as a broad-minded man of exceptional business acumen. Mr. Holmes owns stock in the Lumberman's National Bank and in the Marinette & Menominee Paper Mills. He has been chairman of the town board, is now mayor of the city and has held other positions of responsibility and trust. Progressive and public-spirited to an unusual degree, no worthy movement is allowed to fail for want of support on his part. In politics he is an earnest advocate of the principles of the Republican party. Socially he is a Shriner and Knight Templar Mason. On the 12th of June, 1859, Mr. Holmes married Miss Augusta J. Chandler, a native of Maine, born November 6, 1837, and the daughter of Alden Chandler, who in 1849 went from Maine to Escanaba, Michigan, where he operated a saw mill for many years. He was one of the well known lumbermen of the northwest in early times. To Mr. and Mrs. Holmes have been born five children: W. A., Guy W., Arthur K., Ray W., Charlotte L., and Jean who is deceased. Mr. and Mrs. Holmes are worthy members of the Presbyterian church. Mr. Holmes, who is popularly known as "Uncle Billy," is one of the most popular men in his line of business. He has put in more logs than any other man of the Menominee river, and besides handling all the stock for the Kirby Carpenter Co., he has handled logs for himself and others. Kind, courteous and upright, he has a host of warm friends and admirers.

August Spies.—It is no easy matter in these days of rush and activity to reach a high mark of success in almost any calling, and when a man does reach a coveted position, it is not through good luck or influence, but through his own merit as a usual thing. At least such it has been with August Spies of Menominee, Michigan. He is a product of Hesse Darmstadt, Germany; born October 23, 1836. In 1850 his parents emigrated to the United States and located in Poygan township, Winnebago county, Wisconsin, where by industry and good management they made for themselves a good home and reared their family of eight children. There both father and mother died about the same time, when sixty-three years old. In the schools of his native country, and also in those of Wisconsin, August Spies secured a good practical education. When but thirteen years old he began working out as a farm hand, and worked for wages on a farm and in a nursery until twenty years old. After this for two years he rented a farm, and having accumulated some means by his frugality and good management, he bought 160 acres in Winnebago county, Wisconsin. This he carried on successfully for eight years, with the exception of one year when he rented his farm and attended school at Appleton, Wisconsin. He had long desired a better education, and every moment of the year spent in school was put to good advantage. When thirty years old he rented his farm and went to Menominee, Michigan, where he has since resided. For twelve years after locating there he conducted a meat market and general supply store, and while in this business he operated and became possessed of a considerable quantity of timber lands. This was the beginning of his subsequent prosperous career in the lumber business. In 1880, in partnership with Henry Martin, he built the mill now known as the Spies mill which he has operated alone for the past fourteen years. Pine lumber is the chief product of this mill which is modern in all respects. Mr. Spies was one of the incorporators of the Stephenson Banking Co. of Marinette, Wisconsin, which was later organized into a National bank, he becoming a director. He helped to organize the First National Bank of Menominee, Michigan, and is vice-president of the same. Mr. Spies is also president and general manager of the Marinette & Menominee Paper Co., and largely through his excellent business ability he has made this a prosperous industry at Marinette. Aside from this he is president of the Menominee Electric Light Railroad and Power Co., is the chairman of the board of the cemetery trustees of Menominee and is a director of the Gruhl Sash and Door manufactory of Milwaukee, Wisconsin. He built the first brick block in Menominee and his residence was the first solid brick residence in the place. In the year 1860 Mr. Spies selected his wife in the person of Miss Gertrude Prince, a native of Hesse Darmstadt. She came with her parents to the United States in 1850 and with them located in Onondaga county, New York, where the parents passed the remainder of their days. Mrs. Spies was educated in her native country and in the high school of Horicon, Wisconsin. Their union has been blessed by the following children: Charles A., Frank A., Arthur G., Adella, Amelia, Hattie, Alice, Lizzie and Nellie. These children have all received good educational advantages. Mrs. Spies is a member of the Presbyterian church. Politically Mr. Spies is a Republican. He has served four years in the city council and six years on the school board, of which he was treasurer. He is possessed of extraordinary business acumen and in him is strikingly illustrated the force of well-directed energy, steadfast purpose and never ceasing effort in the successful overthrow of obstacles which beset the path of all pushing, enterprising and ambitious men.

CHAPTER XIX.—UPPER PENINSULA.

FROM MANISTIQUE TO ONTANAGON.—DELTA, MACKINAC, MARQUETTE, ONTANAGON, HOUGHTON AND BARAGA COUNTIES.

THE upper peninsula of Michigan was up to 1865 a comparatively unknown region, especially so far as lumbering was concerned. Up to that date communication in winter between the then small cities of the Saginaw river, and Alpena on Thunder bay, and especially to the more northerly points of the lower peninsula, and the fort on Mackinaw Island, was wholly by dog train, while the region east to the St. Mary river, and west to Delta county, was known only to the hardy trapper and hunter, and was considered by the lumberman as a field which might be utilized by coming generations, but would scarcely be opened to the present.

The Green Bay region while politically and geographically included in the upper peninsula, was better known, and the shores of the Bays De Noquet being conveniently adjunct, were better known and more highly appreciated, while yet looked upon as an arctic region access to which in winter was to be had only through hardship and exposure. The only roads were dog trails and the dog train and pack on a man's back, about the only means of transportation. The shores of Lake Superior were known mainly only to the geologist, and were sought only by those who were in search of the mountains of iron and immense deposits of copper, tales of which had been told by hardy adventurers. The days of development were retarded by the rapids which connected Lake Superior with the St. Mary's river and the lower lakes, and which presented an effectual blockade to navigation. The building of a canal and locks around these rapids changed these conditions and brought the shores of Lake Superior into direct commercial relationship with the rest of the world, and led to the founding of cities whose necessities in turn created a demand for methods of transportation which should open communication in winter as well as summer, and with the building of railroads the vast region which had been as a sealed book, was opened to the world, and by none were its resources more fully appreciated than by the lumbermen, who now penetrated its forests and discovered and developed vast bodies of valuable timber, the transportation of which could now be accomplished by either water or rail.

That portion of the upper peninsula bordering upon Lake Michigan was naturally developed at an earlier day than the more northerly section, as it lay upon the route of vessels trading between Chicago and the lower lakes, in addition to its proximity to the extensive operation at Menominee and the Green Bay region, leading to early explorations of those sections which could find an outlet to Chicago and other markets.

The Menominee section, while treated of in this history as a portion of Green Bay territory, is the most prominent producing section of the upper peninsula, the waters of Menominee river penetrating not only Menominee county but Marquette and Iron counties, from which a large portion of its log supplies are drawn. The Escanaba river emptying into Little Bay de Noquet, and as well Ford river, extend into the forests of Marquette county, while the Sturgeon, extending to the northern part of Delta county, and the Manistique river, whose branches extend like spider legs throughout Schoolcraft county, have been the more important streams emptying into Lake Michigan, and have borne the vast lumber supplies elsewhere mentioned to the various manufactories at the lake shore points.

The importance of the upper peninsula of Michigan in its relation to the lumber industry, received little attention previous to 1855, and for some years after that date the greater development of the more accessible territory of the main peninsula left little need for lumbermen to seek the outposts of civilization. In that year, however, a saw mill was erected by John P. Haynes, who built a dam upon the rapids near the mouth of the Manistique river. The mill was soon after destroyed by a flood, but the dam remaining, a second mill was erected about 1860, which was abandoned or destroyed, but of which we are unable to obtain any particulars.

In 1863 Asa E. Cutler, George Witbeck and John S. Reed formed the firm of Cutler, Witbeck & Co., and built a mill, the log supplies of which were purchased on stumpage account from Charles T. Harvey, representing the estate of Corning and Fairbanks, who had secured a considerable body of pine timber in the not distant neighborhood, paying him one dollar per thousand feet for logs growing within a mile of the pond, and a half dollar for logs which demanded a longer haul. Mr. Reed had for some years previous operated at Masonville (Escanaba) under the cognomen of the Delta Mill Co., and George Witbeck and Asa E. Cutler were associated with him in that company. In removing to Manistique, John H. Witbeck joined in the purchase of the Delta Mill Company's mill and effects (amounting to $108,000.00), and became a member of the firm of Cutler, Witbeck & Co. Soon after a corporate company was organized, which was known as the Chicago Lumber Co., with interests distinct from those of Cutler, Witbeck & Co. This company in 1868 sold its stock and Manistique property to James S. Slauson of Racine, Wisconsin, and the Witbecks purchasing the interests of Cutler and Reed, formed the well-known house of H. Witbeck & Co., which then began operating on the Menominee river, with a mill on the Wisconsin side (see Marinette), and has continued operations at that point and at Chicago. Mr. Slauson in 1872 sold the property to Abijah Weston, Alanson J. Fox, B. S. Colwell and William M. Colwell, and the Chicago Lumber Co. has continued operations to the present day.

In 1881 a new corporation known as the Weston Lumber Company was organized, which while practically embracing the same stock holders, and the same general interests is a separate and distinct organization. The aggregate capital of the two corporations is about $2,000,000, and the value of their annual product $750,000. They employ about five hundred men in the manufacture of about 75,000,000 feet of lumber annually, beside vast quantities of lath, shingles, etc. Abijah Weston and Alanson J. Fox had for many years been extensively engaged in lumber operations in the Chemung valley of New York (see biographical sketches), but realizing that the timber of that section was being rapidly exhausted, they about 1869-70 began to make investments in the pine timber of Michigan, and among their earlier operations, through their connection with the building of seventy-eight miles of the northern end of the Green Bay and Ontanagon military road, acquired a large body of timber lands which had been granted by the legislature of Wisconsin for the purpose of building that road, these lands were largely selected along the line of the road and comprised many excellent tracts of timber. As before stated, the Chicago Lumber Co. was at this time controlled by James R. Slauson of Racine, from whom the mill property was purchased by Weston and Fox in 1872, and the company reorganized in their interest. The mill at this time consisted of two circular saws run by water power, and the product was about twenty thousand feet per day. With the new blood infused into the operation they at once proceeded to rebuild and enlarge the mill, with slabbing and stock gangs, retaining one circular; the gangs were of the old-fashioned "Yankee" gang style, of the type then common in the mills of New York and Pennsylvania, and being of unquestioned efficiency have been retained to the present time. About 1874 the Weston Company erected a second mill on the west bank of the river, at the end of and taking power from the same dam, and about 1875 erected a third mill about a mile further up the river and from that time to the present the mills of the company have cut an average of from 70,000,000 to 80,000,000 feet of lumber annually, together with about 7,000,000 shingles and a proportionate quantity of lath. Until the year 1873 there was no graded road in all the country about Manistique, the town depending upon lake navigation in summer and the ice of the lake in the winter season. In that year, however, the Weston & Fox Company, under a grant from the state, constructed a good road to Fayetteville, thirty miles distant on Bay de Noquet and about 1885 by the construction of the Minneapolis & Sault Ste. Marie railroad, the town was brought into connection with the outside world.

In January, 1880, the Delta Lumber Co. was organized by Edwin L. Thompson, a lumberman of Lapeer county, in connection with R. B. Currier of Springfield, Massachusetts, and John T. Rich (governor of Michigan 1895-6) together with some operative parties, and acquiring some extensive timber tracts in Schoolcraft and Delta counties, erected a circular, gang, and band mill on the lake shore a few miles from Manistique, where a village called Thompson was established and a harbor secured, and where the company has since continued operations with a cut of about 25,000,000 feet of lumber, together with shingles and lath, yearly since that time. Included in the Thompson plant is twenty-four miles of railroad extending into the lands of the company for logging purposes, together with ample dockage for the steamer and her consorts belonging to the company, and used for conveying its stock to extensive distributing yards at Detroit. (See sketch E. L. Thompson.) This company also operates the "Moffat" mill at Detroit, which it has recently rebuilt to a capacity of 50,000 feet per day, the logs for the supply of which are towed from the Georgian Bay and other points on the lakes.

About 1882 the North Shore Lumber Co. was incorporated and commenced the manufacture of lumber to the extent of from 13,000,000 to 15,000,000 feet annually, with a mill containing two circulars, a lath and a picket mill. This company consisted of J. H. Pearson of Chicago, E. H. Pearson of Saginaw (later of Chicago), Granger Farwell and L. Q. Perry of Chicago; their mill was located at South Manistique about three miles from Manistique village.

Since 1873 the yearly product of the mills enumerated under the head of Manistique has been in excess of 150,000,000 feet yearly, and the gross production of this section has aggregated since the first mills ever put in operation, not far from 4,000,000,000 feet.

The compiled reports of 1896 give the following named locations in the upper peninsula district and the parties operating at each, with the production of each for that year:

Baraga—T. Nestor estate, 32,000,000; shingles, 3,000,000. John Funke, 7,000,000. Bay Mills—Hall & Munson, 31,834,205. Chassell—Corey Shingle Co., shingles, 5,500,000. Deer Park—N. B. Bradley & Sons, 11,960,000. Detour—Detour Lumber & Shingle Co., 3,000,000. Dollarville—Dollarville Land & Investment Co., 5,440,000. Eagle Mills and Michigaume—F. W. Reed & Co., 14,790,000; shingles, 1,984,000. Emerson—Cheesboro Bros., 15,000,000. Grand Marais—Marais Lumber Co., 36,000,000. Lake Linden—Estate Joseph Gregory, 5,325,875; shingles, 2,000,000. Hancock—M. Moralee, 1,300,000; shingles, 500,000. Houghton—James Pryor & Son, 900,000. Hessel—John Hessel, 200,000. Huron Bay—N. M. De Hoas, 5,300,000. Iroquois—Huber & McKay, 100,000. Manistique—Delta Lumber Co., 21,374,000. Chicago Lumbering Co., 60,000,000. Hall & Buell, 26,000,000. Marquette—Bice Lumber Co., ———. Dead River Mill Co., 24,000,000; shingles, 3,050,000. F. H. Begole & Co., 2,000,000. June Bros., 200,000; shingles, 200,000. Naubinway—N. Holland Co., 12,000,000. Negaunee—Johnson Lumber Co., 1,550,000; shingles, 1,450,000. Nessen City—Gard & Hislop, 1,000,000. Norwood—G. N. Nash, 1,500,000; shingles, 2,000,000. Ontanagon—Diamond Match Co., 12,000,000. Pequaming—C. Hebard & Son, 24,000,000; shingles, 25,000,000. Ste. St. Marie—E. E. Ainsworth, 12,000,000. Soo

D. W. Tiler

Lumber Co., 12,000,000. St. Ignace—Jameson Lumber Co., 6,500,000. A total for the points named of 386,274,080 feet of lumber, and 44,684,000 shingles.

Alanson J. Fox of the firm of Fox, Weston & Co., was born at Glens Falls, New York, in 1833. When he was but from three to four years of age, his parents removed to Ballston Spa, Saratoga county, and here their son grew to manhood, receiving his education at the common schools of that town. At the age of seventeen he went to Canada, where his father, the Rev. Norman Fox, was interested in lumber operations on the Rideau canal, and in looking after his father's interests at that point, learned the secret of lumbering in a manner which well fitted him for the extensive business with which he was in future years to be connected. In 1853 he went to Painted Post, New York, where his father was associated with Abijah Weston and W. C. Bronson in one of the largest operations of that, for a generation, most important lumbering region. The Tioga valley and the Chemung valley were noted for the excellent quality of pine which in great abundance grew near to the main streams and their tributaries. In 1832 a mill was built on the left bank of the Tioga river, about one and a half miles from Painted Post in Steuben county, where a dam was constructed to furnish the requisite power; the mill was of the type which at that date may be said to be the only one known to the saw mill world, and its ponderous gate saw for many years made music in the solitude of the forest, its product being made into rafts which the spring freshets floated down to the Susquehanna and to a market at Port Deposit or Havre de Grace, on Chesapeake Bay. In 1846 these mills were purchased by the Rev. Norman Fox (father of Alanson J.), Abijah Watson and William C. Bronson, and the firm of Fox, Weston & Bronson was for many years one of the leading lumber manufacturing concerns of the country. Soon after acquiring the property, the firm rebuilt and remodeled the mills, introducing gangs, (the first to be used in the Chemung valley), and from 1846 to 1885, manufactured from 8,000,000 to 13,000,000 feet per annum, the cut of the later years being reduced by the increasing scarcity of timber, until in the closing years of operation (1885) its cut was largely of small and defective timber, including a goodly proportion of hardwoods. In the twenty-eight years of operation the mill cut aggregated 220,000,000 feet of lumber. During many of the later years of this business river rafting of the product was dispensed with, and market was found through the Chemung canal, and the railroads which had been extended into this section. It was in this extensive business that in 1853 Alanson J. Fox became an employe, being four years later admitted to a partnership, the firm becoming Fox, Weston & Bronson. The elder Fox died in 1863, and Mr. Bronson retired from the firm in 1873, at which time the firm became Fox, Weston & Co., Major Charles J. Fox (a younger brother) who had made an enviable record in connection with the war, becoming the "Co." About 1869-70 the firm became interested in the vast pine resources of Michigan, and while upon a tour of observation, became interested in the building of the Green Bay and Ontonagan State road, through which they acquired large tracts of land in Wisconsin, and in 1872 purchasing the mill and timber lands of the Chicago Lumbering Company of Manistique in the upper peninsular of Michigan, remodeled the mill, substituting gangs for the circular saws which had hitherto comprised its equipment. This mill was located on the east side of the river and was run by water power, and a year or two later the company erected a second mill on the west side of the same dam. About 1875-6 the company erected a third mill about a mile further up the stream, and for many years past the combined cut of these mills has averaged from 75,000,000 to 80,000,000 feet per annum, while present estimates place the remaining available timber for future operations equal to a five-year production in the mills, or in the neighborhood of 400,000,000 feet. In connection with their operations the company maintains a fleet of steam barges and sailing vessels, and finds market for its product at Chicago and at eastern points. Although residing at Detroit, where he removed in 1888, Mr. Fox has retained the financial management of the extensive operations of the firm at Manistique, and to his superior qualifications, through long experience, is in no small degree due the abundant success which has attended the operations of the company.

Mr. Fox has for many years occupied a prominent position as one of the leading laymen of the Baptist denomination in which he was highly esteemed during his residence at Painted Post, and in no less degree since his removal to Michigan, being another striking example of the salutary influence of a prominent lumberman in shaping the morals and advancing the intelligence of the communities in which his lot has been cast. As a public speaker he has for many years been held in high regard, while his facile pen has not infrequently been employed upon articles which have appeared in public prints, upon economic and political subjects. That his public spirit and usefulness are widely appreciated, is evidenced in his selection to the trusteeship of several of our noted institutions of learning including Kalamazoo college of Michigan, the University of Rochester, New York, and Vassar college.

Abijah Weston.—To speak of Manistique and omit reference to Abijah Weston, would be like attempting to play "Hamlet" without reference to the great Dane. Mr. Weston was a native of New York, having been born in Warren county of that state about seventy-five years ago. Of his early life we unfortunately find no data, but so early as 1846 we find him in connection with the manufacture of lumber at Painted Post, New York, where in connection with the Rev. Norman Fox and W. C. Bronson, under the firm name of Fox, Weston & Bronson, he purchased and refitted an old-fashioned gate saw mill, introducing the first gangs which were used in that section. This mill was operated for the next thirty-eight years, its closing operations being in 1884-5 with a record for a total lumber manufacture of not far from 220,000,000 feet of lumber, besides shingles, lath and pickets in great volume of which we have no data. During this long period Mr. Weston was also a member of the firm of Weston Brothers, with a mill at Olean, Cattaraugus county, New York, with a sawing capacity of 14,000,000 feet per annum, and another mill at Portville in the same county, with a sawing capacity of 8,000,000 feet, the firm at this place being known as Mesereau & Co. Still another mill located at Gouverneur in St. Lawrence county, in which Mr. Weston was interested, was known under the name of Weston, Dean & Aldrich, and at this mill about 14,000,000 feet of pine, spruce and hemlock, with some hardwoods, comprised the annual output. The well-known firm of Bronson & Weston of Ottawa, Canada, was classed among the largest operators of that well-known lumber manufacturing point, their annual output of 40,000,000 feet finding market at the company's wholesale and retail yards at Burlington, Vermont, and Albany, New York, the yards at Burlington being operated by the firm of Bronson, Weston, Green & Co., having extensive planing mills for the more complete preparation of stock for the retail market. About 1869-70 Mr. Weston, in connection with his partners Alanson J. and Charles J. Fox at Painted Post became interested in the pine timber of the upper peninsula of Michigan, and secured 140,000 acres of the excellent pine lands of that section and in the adjoining state of Wisconsin, and in 1873 purchased the mill and franchise of the Chicago Lumbering Co., at the mouth of the Manistique river, upon which streams they acquired a tract of 50,000 acres of excellent pine which has since been largely added to by subsequent purchases. This mill was originally a two circular mill run by water power, but soon after its purchase by the firm was remodeled by the introduction of gangs and an increase in capacity to a yearly production of 20,000,000 feet. In the reorganization of the company, Mr. Weston was elected president, Alanson J. Fox secretary, John D. Mesereau treasurer, and W. Harlow Hill superintendent. In 1875 the Weston Lumber Company was organized at Manistique, which while practically the same company as the Chicago Lumbering Co., having practically the same officers and interests, was a distinct corporation. This company erected a large mill of 30,000,000 feet annual capacity at the west end of the same dam upon which the former mill was located. In 1884 another mill was built by this company at a point about one mile further up the river, having a sawing capacity of from 25,000,000 to 30,000,000 feet per annum. The operations of the companies have for many years aggregated from 70,000,000 to 80,000,000 feet each season, and they have still standing timber enough for at least five years at the same rate of production, Manistique being one of the few streams whose life tenure from a lumbering point of view is prolonged. Mr. Weston was also about 1872-3 connected with the firm of Weston, Colwell & Co., with a saw mill of 8,000,000 feet capacity, located at Harrisville, Alpena county, Michigan, whose mill was burned in 1874, and not rebuilt.

Mr. Weston has been styled the "King" of the lumber business, and the immense operations with which he has for so many years been and is still connected, certainly entitle him to a highly honorable position in the history of the lumber development of the northwest, and no less in that of the New York and Canadian districts, in all of which, in connection with his various associates, his name has for nearly a half-century been prominently connected with those of the more prominent lumbermen of the respective sections. About 18— the firm of A. Weston & Sons was established at Tonawanda, New York, for the wholesaling and shipping of lumber.

Edwin L. Thompson was born in Crawford county, Pennsylvania, 1845. In 1858 he migrated with his parents to Nebraska. He attended school at Meadville, Penn., 1860 and 1861, and in the spring of 1862 returned to Nebraska where he had a saw mill and was also engaged in farming and merchandising. In 1866 he made a visit to Lapeer, Michigan, where he had relatives, and the pine industry at that time being just on the eve of its development, offered an irresistible inducement. He returned to Nebraska in the fall of that year and closed out all of his holdings, and then organized the firm of Thompson, Rich & Co., and began the erection of a saw mill in the woods six miles northwest of Lapeer, afterward known as Elba, a station on the C. & G. T. railroad. At this time Flint was the nearest railroad station, being fifteen miles from the mill. This was the first successful circular saw mill erected in Lapeer county. The market for the product was to the farming district of northern Oakland and southern Lapeer counties, the farmers visiting the mill in large numbers during the sleighing season. The lumber better than "common" was hauled on the snow to Flint, where it was afterwards sold for rail shipments. Included in this plant was a planing and shingle mill. The timber was exhausted in 1872, and immediately the firm of Piper & Thompson was organized, having secured a very considerable quantity of timber at Five Lakes, about nine miles northeast of Lapeer, at which point was erected a similar mill to the one formerly at Elba and was successfully prosecuted for seven years, finally closing it out in 1879, the timber supply being exhausted.

January, 1880, the Delta Lumber Company was organized by Edwin L. Thompson, who held two-thirds of the stock, R. B. Currier of Springfield, Massachusetts, one-fifth, and ex-Governor John T. Rich of Michigan, one-tenth, and some operative men the balance. This company acquired extensive holdings of timber in Schoolcraft and Delta counties of the upper peninsula of Michigan; and in 1880 and 1881 built its circular, gang and band mills and the village and harbor of Thompson on the shore of Lake Michigan, where operations have been steadily prosecuted since, and will be continued for not less than five years more, or in all twenty years at that site. Included in the Thompson plant is 24 miles of railroad, ample dockage, steamer and consorts for the transfer of lumber produced, to the yards of the company at Detroit. These yards were established in 1886 on a tract of land acquired on the river Rouge in the western suburbs of the city; in connection therewith is an ample planing mill, sash, door and blind, and shingle factory, dry kilns, etc.

In 1895 the "Moffat" mill, formerly one of the principal lumber-producing industries of the city of Detroit, was purchased by this company, refitted, thoroughly modernized, and began sawing in August of that year, producing seven million feet. Extensive limits in the Georgian Bay district, Canada, have been secured, sufficient to sustain this Detroit operation for ten years or more. It is the purpose to bring the logs from these limits to the mill by the way of Lake Huron and St. Clair river, in bag boom rafts. A specialty of this mill will be the production of long and large bill timber for city use.

A general car trade extending from Illinois to Maine is maintained in connection with the manufacturing plant, using Detroit as the distributing point for the entire production of both mills, which in 1896, approximated forty-five million feet of lumber.

DELTA COUNTY.

At an early date, now unknown, a saw mill was built on the Escanaba river, but by whom we are unable to ascertain. Louis A. Roberts, an Indian trader, who settled in the region in 1838, found the mill in operation. This mill was operated from 1842 to 1844 by John and Joseph Smith, who later built a steam mill farther down the river on the site for many years occupied by the mill of the N. Ludington company. In 1846 Darius Clark and Louis Roberts took up a claim on White Fish river five miles from its mouth, where they erected a small water power mill which was operated by Mr. Clark until his death. The property of the Flat Rock mill passed in 1846 into the hands of Jefferson Sinclair and Daniel Wells, Jr. of Milwaukee, who operated it until 1851, when the N. Ludington Company was organized, Sinclair retiring from the company in 1855.

Silas Billings, George Richards and David Bliss built a water power saw mill on Ford river about one mile from its mouth in 1845, which in 1856 became the property of Joseph Peacock and George Legare. This mill was destroyed by fire in June 1856, and Peacock and Legare erected a steam saw mill on the site, which a year later was removed to the site later known as that of the Ford River Lumber Co., which was organized in 1866-7, the property having now passed into the hands of John S. McDonald and others, who formed the Ford River Lumber Company shortly afterward. Peacock and Legare became residents of this locality in 1854 and built a saw mill in 1862, which in 1867 they sold to McDonald, Lynch & Temple, who ran it for a couple of years and sold to the Ford River Lumber Company, which was incorporated in 1869, and who operated the mill until 1871, when it was destroyed by fire; the company at once proceeding to erect a much larger mill, which began operations in the spring of 1872. This company has continued in operation until the present time.

In the inception of this company John S. McDonald was president, and upon his withdrawal in 1882 he was succeeded by William Blanchard, who has since held that position. John J. Borland was treasurer and upon his death in 1882 was succeeded by Philip H. Auten; John D. Ross (now of Brooks & Ross Lumber Co.) was secretary and manager of the company. Mr. Borland had charge of the company's interests at Chicago, a duty which on the death of Mr. Borland devolved upon Mr. Auten, but in 1897 devolved upon Reuben Knox of the commission house of Bickford & Knox, who now has charge of the disposition of the annual product of the mills, which for many years was of a volume of 50,000,000 feet of lumber and 11,000,000 shingles, and during later years has largely exceeded that amount. The Ford River Lumber Company had its origin in 1844, when Silas Billings, George Richards and Daniel Bliss, pioneers of Delta county, built a water power mill a short distance from the mouth of Ford river, which was operated until 1850, when Joseph Legare purchased the claim and mill, and erected a small steam mill at the mouth of the river. In 1854 Joseph Peacock became a partner, retaining his interest for a number of years. This mill was destroyed by the spring freshets of 1860, when Mr. Legare erected a second mill, which in 1866 he sold to John S. Macdonald, who with others had organized the Ford River Lumber Company.

In 1848 George Richards and S. H. Kerfoot of Chicago built a water power mill on Sturgeon river, near Garden Bay, in which shortly after steam power was introduced. This mill in 1851 passed into the hands of ——Holbrook and Timothy Wright, who operated it until 1859, when further operations were suspended until 1881, when it was rebuilt. Ferguson & Williamson built a small steam mill at Masonville at the mouth of the White Fish river in 1850, which in 1852 was purchased by Richard Mason, who continued to reside at this point until his death in 1880.

From the earliest inception of mills in Delta county it is probable that a volume of not less than 2,000,000,000 feet of timber has been contributed to the sum total of the production in the state, but as the region has been variously reported from year to year, now as "miscellaneous mills," and again in the statistics of Green Bay, the historian's estimates will be included in the figures of production credited to the Green Bay district in the final resume of the total production of the state.

MACKINAW COUNTY.

A mill was erected at Prentis Bay, about 25 miles northeast of St. Ignace by E. J. Sevart a settler of 1872. The American Lumber Co., under the management of John Dollar, erected a mill (1882) with capacity for cutting 100,000 feet daily, at Dollarville, about two miles west of the village of Newberry; Hall, Thompson & Co. in 1882 erected a large mill at Mille Coquin.

The Mackinaw Lumber Company was organized in 1881 by the Hon. Francis B. Stockbridge, O. R. Johnson and W. D. Houghteling, whose operations for many years at Saugatuck find mention in the earlier chapters of this history, they finding prominent mention also in the history of Menominee and Marinette. Of this company Mr. Stockbridge was president for many years, James L. Houghteling being for a long period the secretary and treasurer.

This company erected mills at Point St. Ignace, with an annual capacity for cutting 15,000,000 feet of lumber and 4,000,000 shingles, and a second mill at Black river, with an annual cut of 10,000,000 feet of lumber and 2,000,000 shingles. With a decadence of their timber supply these companies ceased operations about 1895, having contributed not far from 3,000,000,000 feet to the gross total lumber production in the state.

Reference to the earlier pages of this history will remind the reader that Pine river in this section was the point at which the first lumber was manufactured in the state of Michigan, which, sometime about 1789, was used in the construction of the forts erected on the Detroit river. Aside from the official records of this fact, as previously recorded, no data of their operations is available, and no further development of the lumber interest is noted until 1872, as stated above.

MARQUETTE COUNTY.

Sidney Adams settled at Marquette in 1851, and about 1855 built a small saw mill, a half interest in which he sold in 1870 to Edward Fraser, who in the following year became the sole proprietor, operating for many years. In 1874 John Gillett erected a mill, and subsequently a second one. In 1880 Ransom, Burtis & Marsh erected a mill of 10,000,000 feet per year capacity.

Isaac Johnson, for many years a citizen of Negaunee, built a saw mill at Little Lake in 1869, which in 1881 he removed to Negaunee, rebuilding and enlarging it to a capacity of 25,000 feet per day. At Michigaume, F. W. Reed & Co. erected a mill in 1873 for the supply of the settlers' and mining interests; this mill burned in 1873 and was rebuilt, only to be again destroyed in 1875, when a new and larger mill of 8,000,000 feet yearly capacity succeeded it.

The records of 1880 name F. W. Reed & Co. at Eagle Mills, with a cut of 3,000,000 feet of lumber; Ransom, Burtis & Marsh, with a cut of 3,000,000; and the Deer Lake Lumber Co. at Ispheming, with a cut of about the same amount. In 1890 the Brown-Chapin Lumber Co. at Champion, are credited with 25,000,000 shingles; Johnson Lumber Co., Negaunee, 1,000,000 feet of lumber and 300,000 shingles; F. W. Reed & Co., Eagle Mills and Michigaume, 20,000,000 feet of lumber and 3,500,000 shingles; estate of William Walton Dexter, 1,500,000 feet of lumber; Dead River Lumber Co., Marquette, 23,264,000 feet of lumber; S. Bice & Sons, 1,500,000 feet of lumber; E. A. Bradley, 10,000,000 shingles; June Bros., 150,000 feet of lumber and 200,000 shingles; George L. Burtis, 19,000,000 feet of lumber; Edward Fraser and the Bradley Hurst Lumber Co. at Deer Park (new) not reporting. The production to be credited to Marquette county in that year exceeded 66,000,000 feet of lumber, and 40,000,000 shingles.

About 1881-2 Crystal Falls (now in Iron county) became the center of extensive lumbering operations, and the distributing station for thirty odd lumbering camps. No timber had been cut about here prior to 1881, when D. C. Lockwood built a mill in connection with the Crystal Falls Iron Company, to provide the needful timber for "shoring" up the roof of their mine. Philo M. Everett went to Carp river in 1848 for the purpose of building a mill in connection with the Cleveland Iron Company's operations, but as the days of development had not yet arrived, no considerable work is noted in connection with his enterprise. Marquette has never figured as an extensive producing point in the line of lumber in comparison with other sections, the product of 1881 being but 15,000,000 feet, and that of 1892 but about 67,000,000 feet of lumber and 40,000,000 shingles, the returns of 1895 giving about 60,000,000 of lumber and 7,000,000 shingles, as manufactured at points in Marquette county, and still for the period embraced between 1880 and 1896 it is safe to say that 1,000,000,000 feet has been manufactured at points having Marquette as the shipping center.

Of the Lake Superior district as a whole it may be said that no point of lumber production reached any degree of prominence previous to 1879-80, since which time Hebard & Thurber at Pequaming have cut an average of 30,000,000 feet annually, or a gross production of not far from 500,000,000 feet, and other mills of equal capacity have lined the shore and railroads from Ontanagon to Sault Ste. Marie, until the reports for 1895 show a gross production of 400,000,000 feet of lumber and 100,000,000 shingles, as representing the annual contribution of this section to the gross volume of production.

ONTANAGON COUNTY.

Original estimates placed the volume of pine timber in Ontanagon county at 4,000,000,000 feet, but so late as 1852 no endeavor was made to utilize any of it in the manufacture of lumber. Messrs. Cash, Spaulding and Lockwood, desiring in 1848 to build a boat for the freighting business of the Ontanagon river, had recourse to a whip saw in the preparation of all the timber and lumber used in its construction. The first saw mill was built in 1852 by W. H. Stevens, Levi Hanna and John G. Parker, and consisted of a mulay saw and lath mill, driven by an engine of ten horse-power. Like all mills of this character, its product was about 5,000 feet per day; it burned in 1855. In 1881 the Ontanagon Lumber Company was organized by Ontanagon and Chicago parties, with H. H. Rich president, Daniel Kelly vice-president, Gilbert B. Shaw secretary and treasurer, the directors being H. H. Rich, A. J. Rich, and Martin Rich of Ontanagon, A. R. Gray, Thomas Shepard, David Kelley, Perley Lowe and Gilbert B. Shaw of Chicago. This company was capitalized at $250,000, and securing a body of 13,000 acres of excellent pine land, erected a mill capable of cutting 200,000 feet of lumber and 300,000 shingles daily, with a double circular, gang, and shingle mill.

George D. Sisson and Francis Lilly of Grand Haven, Michigan, in 1882, erected a double circular and gang mill of 225,000 feet daily capacity, together with 400,000 shingles.

The heaviest operators at this point for many years and until the destruction of their mill in 1896 by fire, was the Diamond Match Company, whose yearly output, largely consumed in the manufacture of matches, was 75,000,000 feet, in addition to which was a manufacture of about 30,000,000 shingles yearly.

HOUGHTON COUNTY.

While Houghton is more noted for its mineral products than for its timber resources, it yet became necessary in the prosecution of the work of the mines to have a supply of timber for buildings, and in connection with the tunneling and shaft-building requisite for the development of the mining operations, as will readily be perceived from the statement that in one year the requirements of the Calumet and Hecla mines included no less than 2,600,000 feet of pine and hemlock timber, with 13,000 railroad ties. In 1881 the Albany & Boston Mining Company erected a gang saw mill near their works for the manufacture of timber requisite for the uses of their mines. In 1873 the Sturgeon River Lumber Company, which was organized in 1872 by J. A. Close, E. L. Wright, J. N. Wright, F. D. White, S. D. North and O. W. Robinson, built a steam mill of 8,000,000 feet annual capacity, on the north bank of Portage lake at the western end of the village of Hancock. These gentlemen also organized, in 1875, the Sturgeon River Boom Co., placing booms at a bend of the river about six miles from its mouth, from which a canal of 1,300 feet in length was cut through the marsh to Pike bay, where their logs were stored.

Matt M. Moralee built a steam saw mill on the north shore of Portage lake in 1860. This was a mill of about 12,000 feet daily capacity, and was operated until its destruction by fire in 1865, when it was rebuilt with increased capacity, and operated until 1881, when it was again rebuilt and its capacity increased to 30,000 feet daily. In connection with J. H. Olds, Mr. Moralee had a saw mill and sash and door factory at Ripley, a hamlet about a mile east of Hancock, which they operated for about seven years.

Joseph Gregory, a Canadian, who had assisted in establishing the first mill at Superior City in 1855, went to Portage lake in 1859 and worked for Moralee & Olds, and in 1860 began the purchase of timber lands, furnishing logs to the Ripley mill and timber to the mining companies. In 1867, in company with Louis Eschamps and —— Normandin, he built a saw mill at Lake Linden and engaged in the manufacture of timber under the name of Joseph Gregory & Co. In 1872 he purchased his partners' interest and rebuilt the mill on a larger scale and with all modern improvements, adding a sash and door factory. Scarcely was the mill in operation when it burned, and was rebuilt with a much better double rotary mill with cutting capacity of 40,000 feet daily. The records of each succeeding year chronicle the work of the Gregory mill at about 11,000,000 feet of lumber and 2,000,000 shingles, until in the report for 1895 the estate of Joseph Gregory is credited with a cut of but 2,600,000 feet of lumber and 4,000,000 shingles.

The reports of 1895 credited this section with the mills of M. M. Moralee at Hancock, 1,300,000 feet; J. B. Smith, L'Anse, 10,000,000 feet of lumber and 4,000,000 shingles; Gregory estate, Lake Linden, 2,600,000 feet of lumber and 4,000,000 shingles; Estate Thomas Nester, Baraga, 32,000,000 feet of lumber and 3,000,000 shingles; John Finck, Baraga, 9,000,000 feet of lumber; Charles Hebard & Son, Pequaming, 28,000,000 feet of lumber and 25,000,000 shingles; DeHass, Powell & Co., Huron Bay, 4,500,000 feet of lumber; Sturgeon River Lumber Co., Chassell, 15,000,000 feet of lumber and 6,000,000 shingles; Corey Shingle Co., 5,800,000 shingles; George McDonald, Redruth, 450,000 feet of lumber; or 185,000,000 feet of lumber and 47,000,000 shingles for the district including from Outanagon to the Marquette river. This district may be set down as having from 1870 to 1895 produced not far from 3,000,000,000 feet.

BARAGA COUNTY.

A saw mill was built at L'Anse in 1838 by Charles Childs, and operated in a desultory manner until it was burned in 1850, and was not rebuilt. The Hebard & Thurber Lumber Company, organized as a stock company in 1878 with an authorized capital of $200,000, is located at Pequaming, about seven miles north of L'Anse in Baraga county; of this company Charles Hebard was elected president, Edward W. Hebard vice-president, H. C. Thurber secretary and treasurer. The company held over 100,000 acres of pine land as early as 1880, and its manufacture with a mill running circular and gang saws, includes 25,000,000 feet of lumber, and 25,000,000 shingles annually. In 1881-2 Thomas Nestor of Saginaw built a thoroughly modern mill at Baraga, two miles across the bay from L'Anse, which has since been operated with a yearly average cut of 40,000,000 feet of lumber and 6,000,000 shingles. The mill is now operated by his estate.

While our record by no means includes all of the the mills which are operated in this portion of the Lake Superior district, it is sufficiently succinct to illustrate the importance of the forests of the district, and by a careful analysis of all the data attainable, we set down the production of lumber on the Michigan portion of Lake Superior shores at an aggregate of 6,000,000,000 feet, which is less rather than more than is warranted by the facts. This district, like all other portions of the State, is rapidly approaching its period of pine extinction.

Thomas Nestor.—Few have been more intimately associated with the development of the northern portion of the upper peninsula of Michigan than was Thomas Nestor, who indeed may almost be classed among the pioneer developers of the lumber business of the main peninsula.

Mr. Nestor was born at Achille, County of Mayo, Ireland, in 1833. When he was but fourteen years of age his parents emigrated to America, stopping for a brief period in Canada, and during the same year reaching Sanilac county, Michigan, where his father followed the occupations of blacksmithing and farming. About 1851 Thomas left home, and found employment with John Drake, who was then building a mill on the west bank of the Saginaw river at Bay City. A year later he went to Port Huron, where he filled several positions in a saw mill until he became head sawyer, spending his winters in the logging camps of the Black river of St. Clair county, Elk creek, Sanilac county and on the west side of the state, on White river, Newaygo county, being connected for a portion of the time with the well-known firm of Avery & Murphy. About 1862 he returned to the Saginaw valley, and lumbered on the Tittabawasse, Pine and other streams of the valley, being associated to a considerable extent with Col. W. L. Little and Jesse Hoyt, two well-known capitalists and lumbermen of the valley, the latter being "the father" of East Saginaw, and the former a banker of that city. About 1874 Mr. Nestor erected a single circular saw mill near Wells on the Michigan Central railway, where it crosses the south branch of the Rifle river, which he operated for a few years. This mill was an exemplification of the capacity of a circular saw, having cut 98,000 feet of one inch boards, and 5,000 feet of two inch plank in one day of eleven hours. In connection with this mill he had a shingle mill with a capacity of 120,000 per day. About 1877 Mr. Nestor, in company with Wells, Stone & Co. of Saginaw City, acquired a tract of 700,000,000 feet of pine timber in the counties of Gladwin, Roscommon and Clare, and building a logging railroad of fifteen miles' extent, through the tract, was engaged for four years in dumping 50,000,000 feet of logs per season into the waters of Sugar creek, which floated them to the mills at Saginaw. In 1881 Mr. Nestor sold out his interest in this operation to his partners Wells and Stone, receiving $500,000 for the same. He had for a year or two previous become interested in the pine of the northern peninsula, which to this time had been given but little consideration, because of the plentifulness of the supply nearer to the markets of the country, and on separating from Wells and Stone, he extended his purchases, until he had acquired 60,000 acres of excellent pine land, on the Ontanagon and Sturgeon rivers, and on Kewaunee Point, and erected a saw mill at Baraga. This mill was originally a two circular and gang mill, but later was remodelled to two bands and a gang, having sawing capacity of 200,000 feet per day, or from 45,000,000 to 50,000,000 feet per season. In connection with this large business Mr. Nestor acquired the steam barges Schoolcraft and J. E. Potts and built at Baraga the tow barges Marion Burke and George Nestor, they being the first craft of any considerable size ever constructed on the waters of Lake Superior, having capacity for carrying 1,000,000 feet each; the barge Keweenaw also belonged with the fleet, which was towed by the steam barges Schoolcraft and J. E. Potts.

Mr. Nestor died in 1890 at Baraga, after but a three days' illness, respected by all, as a noble-hearted, honest and intelligent man, who had carved out a fortune from his steady purposes to that end, during an eventful life. His vast estate is handled by his sons and brother, who have charge of the lumbering operations which embrace a cut of 50,000,000 feet per season, the logging department being in charge of Mr. Patrick Nestor, and the mills and manufacturing branch being handled by Mr. John Nestor. The business office at Detroit is in charge of Mr. George Nestor, eldest son of Thomas, and he has the assistance of his younger brother Frank in connection with the same.

Mr. Nestor was married in 1860 to Miss Margaret Mann of Sanilac county, and seven children were born to them, of whom George, Mrs. M. J. Bourke, John F., and Frank P. survive.

In 1882 the family took up its residence in Detroit, where it still continues. Mr. Nestor was a Republican in politics, and while never taking an active or aggressive part in political affairs, was a clear-headed and intelligent observer of daily events. One of the most affable of men, he was at the same time one of the most positive, and withal, one who could be relied upon most implicitly, whether in business or in friendship. From a laborer in the mills of others, in days when a cut of six to ten million feet was considered remarkable, if not hazardous, Mr. Nestor's foresight took hold of the possibilities of later days, and his savings were always with a view to an increase and extension of his business, until at his death he left an estate valued at $3,000,000 to the care of those who know well how to conserve and care for it.

R. G. Peters

CHAPTER XX.

THE RAILROADS OF MICHIGAN.—FLINT & PERE MARQUETTE R. R.—SKETCH F. LISTER.

THE era of railroad building into the forests of Michigan dates from about 1860, the Flint & Pere Marquette road being opened for preliminary traffic by its contractors in the summer of 1862, at which time trains began to run between Mount Morris in Genesee county, and East Saginaw, for the convenience of travel, and the transportation of the product of a number of mills which, in anticipation of its completion, had been erected at Mount Morris, Pine Run, Clio, Birch Run, and Bridgeport, and in the following year, the track having been extended to Flint, the mills at that point began to avail of this method of shipment to water transportation at East Saginaw. Soon after, the Flint & Holly road formed a connection with the Detroit, Grand Haven and Milwaukee road, giving an outlet to Detroit, of which the lumber manufacturers on the line of the Flint & Pere Marquette, were not slow to take advantage. Upon the completion of this road from Flint to the Saginaw river, its western extension was at once entered upon, and an extensive manufacture at Midland found outlet to the river. It was not until 1870 that the Flint & Pere Marquette road reached Lake Michigan at Pere Marquette (Ludington), but with its progress, mills were built along its line at Averills, Sanford, North Bradley, Coleman, Loomis, Clare, Farwell, Crooked Lake, Sears, Evart, Reed City, Chase, Nirvana, Forman, Baldwin, and other towns of lesser note, all of which became important manufacturing points, or points of access to the lumber camps upon the various tributaries of the Tittabawasse, Muskegon and Pere Marquette rivers.

In 1869 Headley & Lewis' annual report of the mills of the Saginaw valley credited mills on this line of road as follows: Buena Vista, 2,000,000 feet of lumber, 500,000 shingles; Bridgeport, 1,000,000 feet of lumber, 500,000 shingles; Midland, 11,000,000 feet of lumber, 13,500,000 shingles; Birch Run (including three or four inland mills), an aggregate of 12,000,000 feet of lumber, and 6,000,000 shingles. In 1873 the mills on the line of the now-completed railroad reported a cut of 55,303,000 feet of lumber and 120,699,000 shingles. This quantity was increased from year to year until 1881, when it reached its culmination with a reported production of 130,920,704 feet of lumber and 212,814,313 shingles, these latter increasing in 1882 to 253,417,000, while the lumber cut decreased to 112,638,562 feet and continued upon the down grade from year to year upon a regular sliding scale until 1895, when but 18,444,950 feet of lumber and 44,250,000 shingles were reported.

The aggregate reported cut upon this line of road from 1873 to 1895 was 1,682,044,754 feet of lumber and 3,647,060,563 shingles (equivalent to 729,412,112 feet of logs), or a grand total of 2,556,186,617 feet of manufactured product produced upon the line of the Flint & Pere Marquette railroad in the space of twenty-two years, to which must be added the log hauling business of the road (which, as it supplied the mills of the Saginaw river, figures in the sum total ascribed to the valley).

About 1876 this railroad experimented with the mooted question of the expediency of hauling logs direct to the mills at Saginaw, the project succeeding beyond the expectations of its inceptors. Previous to this time, the log supply was obtained wholly by river rafting, and the mills were not seldom greatly incommoded by the long delays incident to river driving and no less annoyed by the inevitable loss from sinking logs, or those stranded upon low banks, where they must remain until another season. By railroad carriage all these difficulties were overcome, the logs being hauled direct to the mill booms, in a majority of cases, where they were at once available. By the year 1880 the resources of the mills at Flint were wholly dependent upon this rail carriage, to facilitate which, spurs were run from the main line, and private logging roads were built as feeders, these reaching into timber which was not available for river logging, because of their remoteness from the stream, thus utilizing vast quantities of timber which in former years had possessed but little value from their inaccessibility. From the auditor of this road we learn that the log hauling between 1876 and 1896 included no less a quantity than 1,940,193,019 feet, making a total aggregate of timber supply upon its line of 4,920,368,414 feet, or, in round numbers, five billion feet.

Fred Lister.—Clare county in Michigan (through which passes the F. & P. M. railroad) has from the early days of the lumber development in Michigan held a deservedly high reputation for the extent and high quality of its pine forests, and while in the many years during which this branch held pre-eminence, its equally valuable forests of hardwood were almost wholly overlooked and neglected, yet with the decadence of the pine supply an awakening perception of the value of the hardwood forests of the State revealed an extent and value to the hardwood resources of Clare county scarcely second to those of any other of the northern counties. The village of Clare became a prominent lumber centre about 1863-4, and with the advent of the Flint & Pere Marquette road a few years later, it became one of the most important stations on its line, and noted for its shipment of forest products, and as well as the point of divergence to logging camps north. About 1884 a saw mill was built by Josiah Horning on the site of a mill which had previously been operated for many years by Tobias P. Horning. This mill was, in 1889, purchased by Frederick Lister and George Archamboult, and operated by that firm in the manufacture of hardwood lumber, from the different varieties of timber which abound in the forests contiguous, and convenient of access, until 1894, when Henry Ort purchased the interest of Mr. Archamboult, and the firm of Lister & Ort continued to operate the mill until 1896, when Mr. Ort sold his interest to Mr. Lister, who has since continued the business. The mill had capacity for the manufacture of about two million feet per year, and the quality of the timber causes the product to be sought by the manufacturing firms of Michigan and other states. Mr. Lister is a native of England, where he was born June 3, 1854, and in whose schools he was educated, until attaining his eighteenth year, when in 1872 he came to the United States, residing for a time in the state of New York and later taking up his residence in Michigan, following the occupation of a farmer, which indeed he still pursues in connection with his mill business, and in both occupations has developed the traits which mark the good business man. The mill was purchased on time, but with excellent management the debt was soon liquidated and a handsome surplus acquired.

Mr. Lister, by strictly business habits and integrity of character, has built up a large and prosperous business in products which but a few years since were not looked upon as having any commercial value, if indeed they were not regarded with contempt, but which with the declining volume of white pine, have assumed a value which already marks the hardwood growth as second only in importance to its more favored predecessor, and will in the future attain a position of constantly increasing importance in the lumber business of the nation.

JACKSON, LANSING & SAGINAW RAILROAD.

("Michigan Central.")

About 1868-9 the Jackson, Lansing & Saginaw railroad, which a year or two earlier had been built north from Jackson to Lansing, the State capital, was extended to Winona, as the present thriving city of West Bay City was originally named. This road, passing through the valley of the Shiawassee river, gave outlet to the product of mills located at St. Charles, where were three saw mills, with a lumber product at that time of 14,000,000 feet, while its station became the shipping point for four other mills located at Alber, Maple Grove and Swan Creek, with a cut of 3,500,000 feet of lumber and 7,500,000 shingles. The shipments by rail from St. Charles (which is at the head of the lumbering operations on Bad river) were in 1869: lumber, 5,484,000 feet; shingles, 5,100,000; hoops, 3,036,000; staves, 124,500.

To the south of St. Charles, the thriving village of Chesaning and its immediate neighborhood contained nine mills with a united capactty for cutting 13,000,000 feet of lumber, the product of 1869 being stated at 8,200,000 feet of lumber and 6,000,000 shingles. This section, however, had at this time passed its palmiest days, being located at nearly the southern limit of the pine belt, its pine, which was of that excellent character inherent to timber growing in the hardwood, already approaching the period of complete extinction, albeit never amounting to the volume found in the more northerly forests. The rail shipments from Chesaning in 1869 were reported at: lumber, 4,000,000 feet; shingles 500,300; lath, 500,000; staves, 525,000; hoops, 12,500,000; the stock carried over to the following season being between five and six million feet of lumber. The mills of this southern part of the pine belt enjoyed a large local trade in the, by this time, rapidly settling and most excellent farming region, while previous to the building of the railroad, the surplus of manufacture was rafted on the spring floods to a market at Saginaw.

Although at a meeting of citizens held about 1867 at Bay City to consider the advisability of assisting the continuance of the Jackson, Lansing & Saginaw road from Lansing to Wenona by an issuance of Bay county bonds, the opinion had been expressed by Doctor Fitzhugh, one of the largest landed proprietors of Bay City, that it would be one hundred years before it would be necessary to extend the road further north, the far-seeing officials of the Michigan Central railroad, who had now acquired the Jackson & Lansing road, determined upon at once proceeding to build the road through the northern forest, with Mackinaw as its ultimate destination, and in 1870 work was pushed with vigor to that end, and at once the saw mill industry began to develop in this northern inland region, and saw mill towns were established at Pinconning by George H. Van Etten and Augustus Kaiser, who erected a large mill, the firm later becoming Van Etten, Campbell & Co., George Campbell of Bay City purchasing the Kaiser interest; a few miles further on, George Cross erected a large mill at Standish; Stevens & Graham located at Deep River; George W. Hotchkiss at Greenwood, Ogemaw county; the Ogemaw Lumber Co. at Ogemaw; while the village of West Branch became the entrepot for logging operations on the head waters of the Rifle, Au Gres and Tittabawassee rivers. Wittauer & Schierman erected a large mill at St. Helens, which a few years later was purchased by Henry Stephens, an old-time lumberman of Five Lakes, near Lapeer.

By 1873 the extension of trade on this line led to a reported cut of 50,300,000 feet of lumber and 15,100,000 shingles. Cutting & Damon and S. V. & C. P. Thomas at Beaver Lake, T. Jerolman at Roscommon, G. M. Cheney at Cheney, Goodall Bros. at Crawford, Wright & Wells at Bradford; Smith, Kelley & Dwight at Otsego Lake, and A. Dawes followed with mills as the road reached to the north, and by 1876 the reported product had reached 150,000,000 feet of lumber and 225,000,000 shingles. From this date, however, the production declined for several years, but 68,000,000 feet of lumber and 40,500,000 shingles being reported in 1880, the figures hovering below the one hundred million mark until 1884, at which time the shingle cut had fallen to 2,650,000. From that date the production increased year by year until in 1892, when the lumber product was reported at 147,269,000 feet and the shingle product at 100,000,000. This year marked the culmination, however, and the decline again set in, the figures for 1895 being 85,609,119 feet of lumber and 41,612,750 shingles.

The total production of this road from 1873, the date of the first reliable statistics, to 1896, was 2,650,000,000 feet of lumber and 1,900,000,000 shingles, equal to 380,000,000 feet of logs, making the manufactured product of this line of road to aggregate 3,050,000,000 feet. To this, however, must be added a large log product, for, like the Flint & Pere Marquette road, it began in 1874 to run trains for the hauling of logs to the Saginaw river, and during the twenty-two years which have since elapsed, it is safe to say that no less than 1,500,000,000 feet of logs have been hauled by this road and its feeders, to the booms at Pinconning and the Saginaw river, making a grand aggregate of fully 4,500,000,000 feet of timber which has found a market from the forests adjacent to its line of road, beside the vast quantities of bark, cedar, staves, hoops, etc., of which no data is available.

While this road and its branches, including the North Midland, Saginaw Bay & North Western, and Twin Lakes branches, have passed their palmy days of lumber freightage, it will for many years be the seat of a "picking-up" lumber industry, of which hemlock and cedar will be the principal factors.

DETROIT AND BAY CITY, CHICAGO AND LAKE HURON RAILROADS.

The Detroit & Bay City railroad from Detroit to Bay City is intersected at Lapeer by the Chicago & Lake Huron railroad, which in later years was absorbed by the Grand Trunk road. The Detroit & Bay City road was later acquired by the Michigan Central railroad, as was the Jackson, Lansing & Saginaw road previously mentioned. For statistical purposes the Detroit & Bay City and the Chicago & Lake Huron roads are treated as one district, the reported lumber production of which commences with 1874, at which time the manufacture of lumber had reached the volume of 48,500,000 feet, with a shingle product of 70,600,000. The mill capacity at that time was stated at 120,000,000 feet, but the demands of the market did not require its full utilization. Mills had been running throughout this district from an early day, but the difficulties of transportation to a market fifty miles or more distant, had curtailed the manufacture to an almost exclusively home market. There were in 1874 the mills of F. Wilcox at Reese; G. S. Hackett, Fair Grove; W. L. Lee, Fremont; A. Crampton, Millington; C. B. Benson and J. W. Bejole, Otter Lake; S. Carpenter (also shingles), Oregon; R. T. Walker, S. N. Vincent (also shingles) J. D. Millis & Son (also shingles), C. T. Dodge, Clark & Son (also shingles), Piper & Thompson (also shingles), H. C. Rood (also shingles), and C. A. Smith (also shingles), at Lapeer; George Sicklesteel, North Branch (also shingles); Jerome Butler, Burnside; A. & O. Williams and I. N. Jenness & Co., Attica; H. Stephens, Stephens (also shingles), two mills; Garry Goodrich and H. Woodruff, Imlay City; and —— Davison, at Davison (also shingles). There were also the shingle mills of C. B. Benson, Otter Lake; B. F. McHose, Vassar; Newton & Pellis, Oregon; A. Sage, Stephens; Thomas Parker, A. Ruby R. King. Stephen H. Smith and Alex. Johnson at Lapeer; and C. S. Dodge at Elba.

The reports from this district gave a cut in 1874 of 48,500,000 feet of lumber and 70,600,000 shingles; that of 1875 was 65,100,000 feet of lumber and 84,900,000 shingles; that of 1876 being but 51,500,000 feet of lumber and 89,775,000 shingles; 1877, 61,650,000 feet, with 58,750,000 shingles; 1878, 49,450,000 feet, with 42,000,000 shingles; 1879, 42,000,000 feet, with 38,875,000 shingles; 1880, 20,000,000 feet and 25,000,000 shingles.

While it is impossible to arrive at any accurate figures of the production of the section traversed by this route, and in which were located a number of the earlier mills of the State, it is not thought excessive to place the total product of its mills at 1,000,000,000 feet.

SAGINAW VALLEY AND ST. LOUIS RAILROAD.

On the first day of January, 1874, the Saginaw Valley & St. Louis railroad was opened for traffic from Saginaw City to St. Louis in Gratiot county and at once became the outlet for the lumber production of that rich country. Two shingle mills were located at Hemlock City, one by E. Anderson and the other by J. Henry, with a joint capacity for sawing 8,000,000 feet of lumber and 10,000,000 shingles annually; at Greenes, A. B. Bloomer's mill was rated at 5,000,000 feet of lumber; at St. Louis, H. L. Holcomb's mill was rated at 6,500,000 feet of lumber and 2,000,000 shingles. This region being well to the south limit of the pine belt, is watered by Pine creek and Bad river, and having been lumbered for many years, was at this time approaching the end of its pine supply. Bergher & Coon in this year stocked their mill with hardwoods, and put in machinery for the manufacture of cut staves. There were several small mills in the neighboring country supplying the local demand.

The Chicago, Saginaw & Canada road, however, which was but a continuation of the Saginaw Valley & St. Louis road and was subsequently amalgamated with it, extended at this time to Cedar Lake in Montcalm county, and at Alma, Pierce & Ward had a mill of 5,000,000 feet capacity, with a shingle and planing mill in connection; M. Polasky in 1876 started a tub and pail factory and shingle mill; at Vestaburg, Starkweather Brothers had a 5,000,000 feet mill; near Riverdale there were three mills; on the banks of Cedar Lake, Bates & Nelson erected a mill with gang and circular, of capacity for cutting 10,000,000 feet, and at this point was found an extensive forest of excellent timber.

The mills tributary to this road in 1874 reported a cut of 16,500,000 feet of lumber and 13,560,000 shingles, with mill capacity equal to the production of 68,000,000 feet of lumber. The cut of 1875 was 16,100,000 feet of lumber, and 13,000,000 shingles; that of 1876, 8,200,000 feet of lumber, and 12,710,000 shingles; 1877 showed a slight increase to 13,785,000 feet of lumber and 15,280,000 shingles, but no separate statistics were compiled in later years, the production of the road figuring with "interior mills of Saginaw county," and "miscellaneous mills of Michigan." The road has proved, however, a by no means unimportant factor as an outlet for vast quantities of hoops and coarser products of the forest, including hemlock logs and hemlock bark, with large quantities of elm and maple, but its pine resources practically reached their end so early as 1885.

James Henry.—Ability, when backed by enterprising business measures and progressive ideas, will accomplish more than any other professional or commercial requirement. An illustration of this is found in looking over the life record of James Henry of St. Louis, Mich., He is a native of the Isle of Erin and forty-seven years ago, when a young man, came to this country to seek his fortune. Upon coming west, soon after his arrival in this country, he secured employment at his trade of engineering in a saw mill, which he followed many years, and in this way he became connected with the lumber trade. He soon purchased a saw mill at Hemlock, Mich., on the Saginaw & St. Louis railroad, where for ten years he was engaged in the manufacture of lumber and shingles, the capacity of the mill being 15,000 feet of lumber and 30,000 shingles per day. In 1879 he moved his mill to Cedar Lake, and during the four years that he operated there he was highly successful. He cut a large amount of lumber and shingles, and a profitable market was found for his goods in Ohio, Indiana and New Jersey. He moved from Cedar Lake to St. Louis, Mich., in the latter part of 1882, and here purchased a grist mill, which has a capacity of 150 barrels per day, and this he has very successfully operated since in connection with his son Fred C. It is one of the best mills in this part of the State and the product turned out is inferior to none, being in demand as a fancy grade wherever known. Mr. Henry is one of the most expert engineers in the state, and by following his trade in various saw mills after coming to this State, he saved enough money to enable him to build and operate a mill for himself, his shingle mill at Cedar Lake being one of the best of its class in the State, and it became widely known for the superiority of its product. He has interested himself in various enterprises of worth from time to time, and at the present time has stock in and is a director of the First National Bank of St. Louis. He is married, and is the father of a son (who is connected with him in business) and a daughter.

William F. Glasby of St. Louis, on the line of the Saginaw Valley & St. Louis railroad, was among the prominent millwrights of Michigan, a class of expert mechanics upon whose skill depended in no small degree the success of what was for many of the earlier years, a precarious business at best.

Mr. Glasby was born at Mechanicsville, Saratoga county, New York, in 1825, and at five years of age was taken by his parents to Livingston county, New York, where he attended the common schools, and later learned the trade of millwright and builder. In 1849 he went to Adrian, Mich., where after building a factory, he in 1850 went to the Saginaw river for the purpose of building a saw mill for Chapin & Andrus, residents of Ann Arbor. This mill was the sixth one built on the river, and was located at Carrolton, one mile north from East Saginaw, on the west bank of the river. It was considered a good mill in its day, and consisted of one sash saw driven by an engine of 10x16, attached directly to one end of the main shaft, the pitman of the saw being attached to the other end, so that the saw operated with the same speed as the engine; the cut of this mill was between seven and eight thousand feet per day. There were at this time on the river the Williams mill at Saginaw City, and the Emerson mill on the opposite side of the river, the latter from its ability to cut 3,000,000 feet a year, was thought to be the largest mill in the world; it had three mulay saws run by engines which had done service in the steamboat "Walk in the Water," the first steamboat which was run on Lake Erie, the steam for which was supplied by six cylinder boilers, two feet in diameter and thirty feet in length. There was one mill at Lower Saginaw (Bay City) and the Miller mill at Portsmouth (now eleventh ward, Bay City), and one at Zilwaukie, a few miles below Carrolton; this was a gang mill, built by Daniel Johnson of New York. In 1854 Mr. Glasby built a mill for M. Jeffers of Saginaw, and O. M. Hyde (then mayor of Detroit); this was located on the west bank of the Saginaw river opposite East Saginaw, and was kept in commission for twenty-seven years, when it was torn down and the modern mill since known as the Charles Merrill mill erected in its place. The old mill had two mulays and a twenty-six inch circular or "siding mill" for sawing cants of eight to ten inches; it had also an edging table of the early style (a single saw and sliding table) and a lath mill for working up slabs. The new mill was first-class for its day, running two circulars with gang edgers, lath mill, etc., including trimmers and machinery for making staves, the salt industry being, after 1860, an important adjunct to a majority of the Saginaw mills. In later years the mill, which is still in commission, was remodeled by the substitution of bands in place of the circulars. In 1857 Mr. Glasby had charge of the erection of a large mill at East Saginaw for David and William Gallagher, which, after they had run it for one year, was purchased by Mr. Glasby, and was operated by him for eight years, and then sold to Charles Lee. This was a mulay, with a pony gang. In 1875 he helped to build a mill of modern construction for C. K. Eddy at East Saginaw. After a residence of thirty-six years at East Saginaw, during which time he was constantly engaged in the erection of saw mills, salt blocks and bridges, he in 1886 removed to St. Louis in Gratiot county, where he purchased the saw mill and planing mill of Ward & Cone (known as the McRay mill) and ran the plant for nine years, when the timber supply giving out, he tore down the mill and disposed of the machinery. He soon after went to the upper peninsula and helped to erect at Canton a saw mill plant for the Sparrow-Kroll Lumber Co. To go into all the details of Mr. Glasby's eventful life, would fill a volume; he went to the valley when the forests were supposed to be illimitable, and has seen the six mills of 1850 increased to four score, the big Emerson mill of three million feet per year, supplanted by mills cutting 30,000,000 feet per season, and the manufacture of the river increased to 1,000,000,000 feet, while the illimitable forests have melted away until the industry is well-nigh at an end. Truly the events of this one life comprise a history in itself, marking the rise and the decay of one of the mightiest industries which has been developed on this continent.

Mr. Glasby purchased the first town lot of the plat of East Saginaw when the town was laid out in September 1851, and erected the first private dwelling in the now prosperous city. He built the office for The Saginaw Enterprise, the first newspaper in the valley, and assisted in setting up its old-fashioned Franklin press. He operated the first sash and door factory in the valley, and was one of the original company to bore for salt in the valley, and as a contractor, has built a large proportion of the many salt blocks which have since been erected. He was builder and principal owner of the thirty-three miles of plank road which in 1868 connected Saginaw City with St. Louis, in Gratiot county, erecting a portable mill on the line of road, and in the manufacture of about 7,000,000 feet of lumber, not only built the road, but established the villages of Hemlock City, Merrill, Breckenridge and Meridian, later prominent saw mill towns on the line, and still later stations on the Saginaw Valley & St. Louis railroad. Mr. Glasby was one of the original four men who built the first bridge across the Saginaw river, at East Saginaw, and with Chauncey Gibson built the Third street bridge at Bay City, both of which were for several years maintained as toll bridges. As a millwright and builder Mr. Glasby was connected with the building of many of the mills of the Saginaw valley, and few have contributed more to the growth and prosperity of this portion of the State, not only as a contractor, but as a live, wide-awake and enterprising business man.

DETROIT, LANSING AND NORTHERN RAILROAD.

The Detroit, Lansing & Northern railroad, which was extended north from Lansing about 1873, did not penetrate the pine region until it reached Ionia, in the neighborhood of which it at once incited a large lumber industry, which in 1874 had a reported volume of production amounting to 37,950,000 feet of lumber, with 55,800,000 shingles, the estimated capacity of the mills being set down at 104,000,000 feet annually. East of Lansing the road passed through an exclusively hardwood region in which mills had been running since 1835 or earlier, as noted in the introductory chapters of this work, but as the production of hardwood was overshadowed by the more important manufacture of pine, no statistics have ever been compiled showing its extent or importance. This line of road was by the earlier statisticians treated in two divisions: the "main" line, extending from Stanton Junction to Howard City, where it connected with the Grand Rapids & Indiana railroad; and the Stanton branch, north from Ionia to Cedar Lake. It is of this latter of which mention is made above.

Upon the main line the statistics of 1874 show reports from twenty saw mills of an estimated capacity for cutting 109,000,000 feet of lumber, and twenty-three mills, cutting 100,000,000 shingles (many of the mills being simply in course of construction at that time). The reported product of 1874 was 28,750,000 feet of lumber and 9,500,000 shingles, increased in 1875 to 59,100,000 feet of lumber, and 30,000,000 shingles, and in 1876 to 51,200,000 feet of lumber and 76,300,000 shingles; the total product of the main line and its Stanton branch being for 1874, 66,700,000 feet of lumber and 55,800,000 shingles; for 1875, 104,950,000 feet of lumber with 158,200,000 shingles; for 1876, 93,600,000 feet of lumber and 214,150,000 shingles.

The pioneer operators among the saw mills of this road included: H. Porter and Morgan & Stanton, Howard City; Fisher & Son, Hart & Oakley, and Ladeau & Co., Coral; Barnard & Stewart and L. H. Colwell, Colwell; A. Atwood and E. F. Ward & Co., Maple Valley; Hileman, Hesser & Co., and N. Slaght & Co., Trufant; James Gowan and A. W. Dodge, Gowan; Fuller & Potter, Denmark; F. N. Wright & Co., Coffeen & Woodruff, Acker, Price & Briggs, Clark & Rhinesmith Lumber Company and Oliver, Belknap & Green, at Greenville; J. D. Stearns, Smyrna; Tower & Thompson, Fenwicks; D. T. Fargo, W. B. Stone, D. S. Kenwicks, W. Thomas, E. H. Stanton & Son, and Wagar Lumber Company, Sheridan; E. Colby & Co., Colby; William Stevens, R. Whiteman, Orth & Wright, G. Gilbert, W. Matthews, A. W. McBride, Hurdman, Harlan & Co., E. K. Ward, D. L. Densmore, Galloway, Blackman & Co., William Hovey, J. M. Weatherwax, A. B. Nevins, O. Goldthite, Freed Bros. (also shingles), D. Curtis, and Kendall & Sons, at or near Stanton.

In shingle manufacture only (many of those named with saw mills being also shingle manufacturers), were L. Hitchcock, Lord & Kipp, Reed & Robinson and H. Hinkle, at Howard City; J. Rushmore and Keeler Bros., Winfield; Shivelee & Peck and J. F. Schultz & Co., Coral; Christ & Co., Newton; Nichols & Graham and H. Smith, Trufant; D. H. Burwell, S. C. Peterson, H. Seamen, Gowan; John French, S. M. Moore, H. Hart & Co., J. DeGraw, at Denmark; W. B. Stone, — Burton, D. T. Fargo, E. Moffat, Frank & Mills, Neff & Prestel, Maynard & Lowe, at Sheridan. At Stanton, where the bulk of shingle capacity was located, were G. C. Gracely, G. F. Case, J. Towle & Co., Windsor & Faucette, D. D. Kidder, D. M. Gardner, A. J. Sterling, C. R. Williams, G. Emerson, S. D. Albright, Thomas Law, Oscar Fenn, L. Corey, — Ressigue, Wood & Beck, W. F. Turner, B. F. Lansing, James Hartman, Dinney & Co., and F. A. Winsor.

The production of this road fluctuated from year to year until it reached its culminating point in 1883 with a reported cut of 129,672,500 feet of lumber, each year thereafter showing a gradual reduction of the lumber cut until in 1895, when there was but 14,975,000 feet returned as the lumber product of that year. The shingle product on the contrary increased from 178,335,000 in 1883 to 497,567,000 in 1884, hovering about the 400,000,000 mark until 1887, when it dropped to 351,386,000 and with rapid decrease from year to year thereafter, the report for 1895 showed a manufacture of but 12,350,000 and that of 1896, 14,500,000 feet of lumber and 8,900,000 shingles. The reported production of this road from 1873 to 1896 aggregates 1,789,416,868 feet of lumber to which it is safe to add ten per cent or 178,000,000 for production previous to 1873. The shingle production of the same period is reported at 4,254,484,250, which reduced to logs adds 850,896,850 feet to the lumber product of the road, or a grand total production of 2,818,313,718 feet of timber to be credited to the county adjacent to its line, and not included in the statistics of other localities.

The Williams Manufacturing Co. of Ionia, Michigan, operated a fine lumber manufacturing plant, which was established at Ionia in 1885 by Gregg Williams and George W. Webber, and its product consisted of lumber, sash, doors, blinds, interior woodwork and office fittings, special attention being given to the two latter products. Mr. Williams was connected with the business for six or seven years as a member of the firm of Williams & Webber, after which, for some years, the firm was known as William Cruikshank & Co. When this firm dissolved, a lumber yard was operated under the name of Webber & Williams, and the members of that firm make up the present firm of the Williams Manufacturing Co., which was formed in 1889. Their plant was built in 1881, and all kinds of lumber from various sections was and is handled by these gentlemen. While the firm of Webber & Williams was in existence they operated a saw mill which had a capacity of from thirty to forty thousand feet per day, which they sold from their yards. They bought their logs by the thousand and shipped them in by rail to the plant. About 90 per cent of their lumber is milled stuff and they do a retail business, but in car lots. From eighteen to twenty men are employed by them. Mr. Williams has lived in Ionia for thirty years, having come there from near Ottawa, Canada. He was first engaged in building, and many of the better class of buildings in the city are monuments to his skill in this line. He was born in 1843, is a Democrat politically, is the present mayor of Ionia, and has also been city alderman, supervisor and a member of the school board. He is public-spirited, has ever interested himself in all that pertains to the welfare of the place, and is one of her foremost business men and citizens. He is possessed of keen business instincts, and that he is above the average in this respect will not be denied, when it is known that upon his arrival in Ionia his sole capital consisted of 75 cents. He was, however, very ambitious and energetic, and although the struggle to gain a foothold on the ladder of success was at first somewhat severe, he persevered manfully and his labors were in time rewarded. On September 16, 1874, he was married to Cynthia S. Lake of Yorkville, Michigan, and to them two children have been born, George S. and Alice.

GRAND RAPIDS & INDIANA RAILROAD.

The Grand Rapids & Indiana railroad has been one of the largest contributors to the production of lumber on the west side of the state of Michigan. This road reached the pine producing section in 1868, and between that date and the close of 1896 its reported record of production reached a volume of five and a half billion feet of lumber.

The earliest mill of which we find record upon this line was that of George French at Lockwood, in the north part of Kent county, which was built in 1865 and operated one circular saw, with a rated capacity of 3,000,000 feet per season. In the same year George Becker built a mill at Cedar Springs, in the north of Kent county, which also operated one circular rated at 3,000,000 feet, which was about the average at that time expected from a rotary, the double edger not having as yet been introduced.

In 1868 two mills were built at Sand Lake by C. R. Twitchel and E. Ware & Co., each having one circular, and being rated at three and a half to four million feet capacity. In 1868 also J. H. Gibbs and J. H. Myers built mills at Lockwood, also in north Kent county, both having circulars of about the same capacity as the others noted above. In 1869 Stephen Bitley erected a circular mill at Sand Lake; Gibbs Bros. one at Mayfield; L. H. Dolph one at Pearson, and M. J. Durfee one at Lockwood, all being single circulars of from 3,000,000 feet to 5,000,000 feet rated capacity. In 1870 the road was completed to Paris and five mills were added to the list of those upon the line, with a combined capacity for the manufacture of 20,000,000 feet. In 1872 the road had reached Fife Lake, and in 1873 had reached Petoskey. In the reports for 1874 we find that the mills upon this line had increased to fifty with an estimated capacity for cutting 217,000,000 feet, although the returns for that year show a manufacture of but 52,000,000 feet of lumber and 136,000,000 shingles. Of these mills there were eleven at Sand Lake, four at Morley, one at Kalkaska, one at Crofton, one at South Boardman, one at Mayfield, two at Le Roy, three at Pearson, one at Tustin, twelve at Lockwood and sixteen at Cedar Springs.

The vicissitudes of these mills under the panicky conditions which prevailed during the period between 1873 and 1880 is best shown in the fact that in the latter year scarcely one of the names which appeared in the reports for 1874 are to be found in the detailed production on the line of road, and of the towns named above, only Cedar Springs, with three mills, Lockwood with one mill, and Sand Lake with two mills, appear in the record as producing localities, the manufacture of 1880 being almost wholly confined to points which had been established upon the northern extension of the road, Cadillac with a manufacture of 50,000,000 feet being the leading point of production, the report showing a manufacture of 42,000,000 feet at more northerly points to Westwood in Kalkaska county. The total production of this road in 1880, including Grand Rapids with 30,000,000, (that city now figuring as a railroad point in place of shipping as heretofore through Grand Haven, and Big Rapids, which is the junction point with the Chicago & West Michigan road, and is included to the extent of 25,000,000 feet of lumber and 26,000,000 shingles) aggregated a total production of 174,785,000 feet of lumber and 186,581,000 shingles.

These figures sufficiently show the advance made in the production of lumber on this line of road during its earlier years, the highest point of production being reached in 1886, when the returns devel-

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oped a cut of 367,072,251 feet of lumber and 403,999,750 shingles. From this date a steady decrease is noted until the reports for 1895 show a production of 140,168,203 feet of lumber, and 52,535,000 shingles; 1896 showing a further decrease to 95,843,820 feet of lumber and 15,000,000 shingles; the total reported cut upon the line from 1873 to 1896 aggregating 4,786,248,499 feet of lumber and 4,776,634,750 shingles, which reduced to lumber, and with an addition of 600,000,000 estimated production upon the line of road previous to 1873, would place the total to the credit of the Grand Rapids & Indiana railroad at no less than 6,000,000,000 feet since the erection of the first mill in 1865.

Robert A. Moon.—The energy and perseverance of a man's character can find nowhere a better field for manifestation than in lumbering in the state of Michigan, for there the competition is most brisk and a man must needs bestir himself to attain any degree of success, and moreover he must at all times be true to honorable business ethics. Robert A. Moon has fulfilled these conditions, and the result is a wide reputation and a lucrative patronage. He is a native of Poughkeepsie, Duchess county, New York, born January 11, 1831 to Job and Eliza (German) Moon, the former of whom died in 1833, after which Robert A. was taken by his widowed mother to Livingston county, in the public schools of which he secured a practical education, but completed his education in Yates County Seminary, which he attended for one year. At the age of twenty-six years he came west to seek his fortune and walked from Grand Rapids, Mich., to Big Rapids, and in the vicinity of the latter place immediately purchased a tract of land and soon after commenced logging on his own account on the Muskegon river. He proved to be a good manager and a far-seeing business man and in a comparatively short time he had from 150 to 200 men working under him and for eleven years thereafter he got out on an average 15,000,000 feet of lumber annually. All his logs were taken by rail to the river, as the distance was too great to haul them by team, and during the many years that he was thus employed, he prospered financially and in 1885 retired from active business life. He married Miss Susan Granger of New York state when he was about twenty-five years of age, and to them four sons were born, all of whom are living. Mr. Moon was left a widower in 1885, and in 1886 he wedded Miss Josephine Brahan, by whom he has one son now seven years of age. Although the snows of sixty-six winters have whitened the hair of Mr. Moon, he is as erect, active and vigorous as of yore, and interested in all that concerns his fellow men. He is a devoted Bible student, is an earnest and consistent Christian, and has contributed largely to the erection of churches in his vicinity, although he has never connected himself with any church. He is likewise interested in political matters and has ever been a staunch Republican. Of his sons one is a shingle manufacturer of Lake county; Herbert E. is a farmer of the state of Washington; Robert G. is the superintendent of a large lumbering firm in Village Mills, and William S. resides at Big Rapids and is in the employ of the G. R. & I. Railroad.

CADILLAC.

While in tracing the history of saw mill building upon the line of this road, we are dependent to some extent upon the sketches of individual operators for minor details, we cannot omit more extended reference to some of the leading producing points, and of these Cadillac stands among the foremost. Located in Wexford county, it was originally known as Clam Lake, one of the sources of the Muskegon river, and was for many years previous to the building of the railroad, a headquarters for loggers operating upon the head waters of that stream, but with the advent of the road, with facilities for the transportation of lumber other than by rafting, its peculiar advantages for the storage of large quantities of logs, together with highly advantageous sites for the erection of saw mills, led to a speedy appreciation on the part of manufacturers, who were not slow to avail themselves of the best location which was opened up by the railroad. From the time when in 1868 the rails were laid to Cedar Springs, and the road rapidly constructed to Morley, and thence northward, saw mills followed its progress, and were built at many available points upon the line.

In 1871 J. W. Cobb erected a mill on Clam Lake, which later was known as the "Mitchell" mill, and in 1872 a second mill was erected by Green & Hazleton. This latter mill was in 1878 purchased by W. W. Cummer, who sawed under contract the logs of Jacob Cummer & Sons, and their names are thereafter more intimately associated with the history of Cadillac (as it was now called) than those of any other of its many enterprising citizens. The new name was given to the place in honor of the French explorer Cadillac, who founded Detroit in 1701 and was Governor of Louisiana from 1712 to 1717 under the French regime.

The Mitchell mill built by J. W. Cobb in 1871 employed seventy men and in the first reports which are available (1874) is credited with a cut of 10,000,000 feet. In the same report, Harris Bros., with a circular mill built in 1872, and employing 40 men, are credited with a cut of 7,000,000 feet of lumber, and 6,000,000 shingles. In the same report McCoy & Ayer, (date of erection not given) reported a cut of 2,600,000 feet, and the employment of 50 men. With a total cut of 20,000,000 feet, the George A. Mitchell (Cobb) mill ceases to be represented in the later reports. In the 1874 report, the names of Shackelton & Green, J. W. Cobb, and Coombs Bros. appear in the list of manufacturers, but no cut is noted for that or the following year. In 1876 report was made only by Green & Bond, 7,000,000; L. O. Harris, 10,000,000; and J. W. Cobb, 5,000,000. In 1878 Green & Bond with a total cut to that time of 19,821,000 feet appear to have been succeeded by M. J. Bond who operated until 1882 with a total production of 31,000,000 feet. L. O. Harris with a total of 23,000,000 dropped out of the record with a recorded cut of 3,000,000 in 1878. J. W. Cobb, after cutting 20,000,000 feet is in 1880 succeeded by Cobb & Mitchell, who from 1880 to 1896 made a record of cutting 296,217,000 feet. A. W. Mitchell (1882) was succeeded in 1883 by Mitchell

Bros., who continued until 1887 with a total cut of 70,294,000 feet. In 1877 C. D. Nelson & Co. reported a cut of 7,000,000 feet, their names not again appearing. In 1880 appears the name of W. W. Cummer credited to 1883 with 25,069,000 feet, while the Cummer Lumber Company, beginning in 1881 and finishing in 1894, added 212,673,421 feet to the record. In 1881 also, Jacob Cummer & Son reported 21,244,000 feet, and figure in the reports of each succeeding year until 1892, rolling up a total of 344,396,413 feet during the intervening years. In 1894 the Blodgett, Cummer & Diggins Lumber Company figure with a production of 48,526,000, their total for that and the next two years reaching 145,258,000 feet. McCoy & Ayer are reported in 1880 with a cut of 10,000,000 feet, and after cutting 34,000,000 feet were succeeded in 1883 by D. McCoy, who with a cut of 10,000,000 feet in that year, drops out of the record. H. F. May reported a cut of 3,642,000 feet in 1881, and does not again appear in the reports. O. S. Whitmore & Co. in 1881 and 1882 reported a total for the two years of 20,000,000 and are lost sight of. In 1882 Rice & Messmore reported a cut of 2,500,000 feet. E. J. Copley figures in the reports for 1881 and 1882, in the latter year with two mills, his total production being 11,000,000 feet. A. K. Moyer & Co. in 1880 and Moyer & Tam in 1881, combine a total of 26,000,000 feet, and P. Haifley in 1883-4 had a total of 21,500,000 feet. D. E. McIntyre in 1886 reported 5,000,000 feet and Chittenden, Herrick & Co. in 1891-92, 8,500,000 feet. F. A. Diggins & Co. with a cut of 1,500,000 feet in 1887, figure until 1895 with a total of 36,750,000 feet. The Wexford Lumber Co. are found only in the reports of 1894 and 1895 with a total of 8,818,000 feet.

It will thus be seen that of the total reported production upon the line of the Grand Rapids & Indiana railroad of nearly five and a half billion feet of lumber, between 1873 and 1896, the one locality of Cadillac contributed no less than 1,190,231,000 feet as reported, beside the unascertained factor of production previous to 1874, and a considerable volume of shingles, which, however, was too small in the aggregate to cut much figure in the grand total, Cadillac never having been noted as a large producer of shingles. If to these figures were added the product of mills north of Cadillac, but properly within the boundaries of the "Cadillac district," the total would be swelled to a volume representing fully one-half of the gross aggregate credited as a total to the Grand Rapids & Indiana railroad. The cut of 1896 at Cadillac proper was 85,000,000 feet (of which Blodgett, Cummer & Diggins are credited with 46,200,000 feet), and it is estimated that a four-year supply is still available at this point.

The original mills at Cadillac were of the old-style mulay and circular saws, but the operators, principal among whom as we have seen were Cobb & Mitchell and the Cummers, were not slow to adopt improved methods so fast as they were introduced to the saw mill world, and the later mills were fully equipped with gangs, bands, shot gun steam feed, double edgers, trimmers and all other modern adjuncts of a first-class mill.

Of several of the leading operators in the carrying on of this vast business, sketches will be found in their appropriate places, which more fully amplify and perfect the history of this section.

By its favorable location upon the banks of a lake peculiarly adapted for the storage of logs, and with the adjuncts of logging railroads supplementing, and in conjunction with the Grand Rapids & Indiana road, Cadillac has enjoyed peculiar facilities for drawing upon the forests of Missaukee, Wexford, Grand Traverse and Kalkaska counties for its log supply, and has properly been considered the center of the vast lumber production resulting from the erection of saw mills at various points on the line of railroad, many of which are owned and operated by citizens of Cadillac. The history of Cadillac would be incomplete without personal mention of some of the leading actors in the immense business shown by the figures given above.

Jacob Cummer.—Few men have exercised a greater influence in the lumber industry of the northwest than has Jacob Cummer of Cadillac. Mr. Cummer was born near the city of Toronto, Canada, in 1823, at which point his father, John Henry Cummer, was proprietor of a saw mill, connected with which was a flouring mill, both of which he operated in connection with his large farming interests. The family was of German descent, the grandfather of Jacob having emigrated from Reading, Pennsylvania, to Canada in the latter part of the last century, settling near Little York, as Toronto was then known, and engaging in farming, and to the limited extent which the demands of the day required, in the manufacture of lumber from the excellent pine timber which at that time abounded in the neighborhood.

Jacob attended the common school of the district until at the age of eighteen years he commenced an apprenticeship in his father's flouring mill, and learned the business of a miller. At the age of twenty years he went to Lockport, New York, where he spent two years in the extensive mills known as the "Old Farmers Mills," and then returned home to rent from his father both the flouring and saw mill owned by him, paying as a rental therefor, the sum of $600 per year.

The saw mill was an old style English gate mill run by a flutter wheel and had capacity for cutting about six thousand feet in twenty-four hours. The young man continued to run these mills until the winter of 1857-8, when he removed to Watertown, Canada, where, purchasing an interest in two flouring mills, two saw mills, a foundry and machine shop, owned by his brother Lockman A. Cummer, he invested his accumulations, now amounting to $27,000 in what now became the firm of Cummer, Gill & Co. This proved an unfortunate venture, as the financial revulsion which at this time shook the business world, caused the loss of nearly his entire investment. Nothing daunted by this misfortune, Mr. Cummer entered into contract with Judge Adams Wilson of Toronto, to start a new flouring mill at Delaware, Canada, and to run it one year for one half the profits. Having accumulated a little capital, he in 1860 decided to take up his residence in the States, and reaching Newaygo, Michigan, in February of that year, he decided to locate there, and rented the old "Brooks" saw and flouring mills, the former of which contained two mulay saws and a siding machine, the power being provided by an overshot water wheel, the capacity of the mill being about twelve thousand feet per day. After operating this plant for three and a half years, he removed to the town of Croton, renting a grist mill belonging to the Rice Brothers of that town, for a term of three years. He had at this time by careful saving, accumulated a capital of about fifteen hundred dollars, which he invested as a silent partner with the firm of Higbee & Mitchell, in the purchase of timber lands, of the grant made by the government to the Sault Ste. Marie Canal Company, the agent for which favored them to the advantage of his own company, as well as to themselves, in giving them the refusal of such tracts as they could see their way clear to purchase or to dispose of within reasonable time, and upon these sales of land and the profits from the manufacture of lumber, they were soon in a position which enabled them to cut from ten to fifteen million feet of logs per year, for the ensuing four years. Mr. Cummer had charge of the books and finances of this large business, and meantime kept his flouring mill in successful operation, the development of the surrounding country in well tilled farms being at this time so rapid as to be properly characterized as abnormal. The logs put into the Muskegon river through the lumbering operations of the firm, found market, or were manufactured, in the mills at Muskegon, the well-known house of Beidler Brothers of Muskegon and Chicago, being among the heavier purchasers.

In 1868 Mr. Cummer removed to Cedar Springs, then the terminus of the Grand Rapids and Indiana railroad, where he embarked still more extensively in the business of buying and selling lumber and the purchase and sale of logs, and on the extension of the road the following year, he located at Morley, with a view to lumbering a large tract of pine lands which he had purchased in that vicinity. In 1870 a mill upon which Mr. Cummer had made loans, fell into his hands, and a partnership was formed by his son W. W. Cummer, and a brother J. W. Cummer, under the name of W. W. & J. W. Cummer, for its operation, the mill being stocked by Jacob Cummer and his son Wellington, they having jointly purchased a large tract of timber lands in the neighborhood of Morley, from the Grand Rapids & Indiana Railroad Co. In 1876 Mr. Cummer removed his operations to Cadillac, where he purchased a large stock of logs which had been put into Clam Lake by E. J. Copley, and procured their manufacture at the mill of Shackelton & Green, erected a few years previous on the banks of the lake. In 1878 this mill was purchased by W. W. Cummer who has since twice remodeled and rebuilt it, to conform to the requirements of modern and improved methods of manufacture, and it is still in operation. Since removing to Cadillac the firm of Cummer & Son have been recognized among the most extensive manufacturers in western Michigan, having purchased large tracts of pine lands, from which, between 1876 and 1891, when they closed their lumber operations, they have cut in excess of three hundred million feet of timber, or an average of over twenty million feet per year. The operations of Cummer & Son have by no means been confined to the State of Michigan, they in connection with Barnett & Hollister of Grand Rapids, being the proprietors of a large mill plant at Norfolk, Virginia, which is supplied with logs from their extensive timber holdings in North Carolina and Virginia. The firm also have a tract of 103,000 acres of cypress and yellow pine lands in Florida, which are estimated to cut about one and a half billion feet of timber. This operation is known as the Cummer Lumber Company (the Cadillac company being dissolved), and the company have a large saw mill in that state, with planing mill, dry kilns, etc., of the most improved and modern adaptation. While looking over this valuable tract of land with an eye alone to its timber resources, rich deposits of phosphates were discovered, for which the firm has refused an offer of a half million dollars. As an illustration of the rapidly advancing values in timber lands, we may mention one transaction of this firm, in which in 1875 seeking investment for surplus capital, a land looker was employed to investigate the resources of Lake county, Michigan, upon whose report the firm located 3,000 acres of government lands, to which they for several years paid no attention except to pay the taxes, when, coming into demand, it was disposed of at an advance of nearly one hundred thousand dollars above cost and charges. The firm have also large and valuable holdings of timber land in Louisiana, being the principal stockholders in the St. Tammany Lumber Company of Louisiana of whose total holdings of 83,000 acres, 23,000 acres are the individual property of J. Cummer & Son; these lands are estimated to cut one billion feet of timber.

Mr. Jacob Cummer was married November 6, 1845, to Miss Mary A. Snider of York township, Canada, and the happy union has been blessed with an issue of six children, of whom one died in infancy, Harry F. being killed in the flour mill at Delaware at the tender age of five years, and Elmer C. being killed by a Shay Grand locomotive, at the age of twenty-six. Wellington W., whose partnership with his father has been mentioned, married Miss Mary Ada Gerrish, and has three children, two sons and a daughter. Miss Carrie E., daughter of Jacob, married Fred A. Diggins of Cadillac; they have two daughters aged four and two years respectively. Mr. and Mrs. Cummer are respected members of the Congregational church, in which they are recognized as hearty and consistent workers. Mr. Cummer is a Republican in politics, but has never aspired to the designation of a politician, his business activities debarring him from active participation in political or fraternal organizations. His is a record of a long, busy and useful life, the example of which has been salutary in its influence upon the communities in which his lot has been cast, and in his ripe age he has the satisfaction of a realization of the esteem and confidence of all who know him.

Wellington W. Cummer, who figures prominently in the statistical record which precedes, and who is a member of the present firm of Blodgett, Cummer & Diggins, in a son of Jacob Cummer, and was born at York township, Canada, in 1846. In 1861 he became a resident of the United States, locating at Newaygo, Michigan, the neighborhood of which has been the scene of his subsequent activities. His earlier education was in the common and high schools of Toronto, his business career commencing with his sixteenth year, at which time his father, having rented what was known as the old "Brooks" mill, the son became identified with him in the manufacture of lumber, and as well in the flouring mill business. In 1863, removing to Croton, their attention was more immediately directed to grist milling, and supplying the rapidly increasing logging interests of the neighborhood with flour and feed, while by no means neglecting the lumber business, the father neglecting no opportunity for placing his means in the purchase of pine lands, and in 1868 they removed to Cedar Springs, to which point the rails of the G. R. & I. railroad were now laid, where they engaged in the wholesaling of lumber. In the fall of 1870 purchase was made from the Grand Rapids & Indiana Railroad Company, of a considerable tract of pine land at Morley, (this being the first sale by that company from the large selections of pine land received by it as a grant in government aid of the building of the road). In 1870 a partnership was effected between W. W. Cummer and his uncle, J. W. Cummer, under the designation of J. W. & W. W. Cummer, for the operation of a saw mill which was stocked with logs by Jacob and W. W. Cummer, they being joint owners of the Morley tract above mentioned. This mill had capacity for the manufacture of about five million feet per season, and a market for its output was speedily established in the states of Michigan, Indiana and Ohio. In the fall of 1876 the firm of J. Cummer & Son, which was formed in 1870, having made purchase of a stock of large "cork pine" logs from E. J. Copley at Clam lake, removed to that place, and in the following spring purchased a large group of pine timber in that neighborhood. W. W. Cummer now purchased the saw mill of Shackelton & Green, which he remodeled, adding all of the more modern improvements as yet developed, and under contract manufactured all of the J. Cummer & Son's timber. In 1881 the Cummer Lumber Company was organized by W. W. Cummer, James M. Barrett and H. J. Hollister, of Grand Rapids, with a capital stock of $300,000, all of which was paid in at the time of incorporation, and this company operated in Wexford and Missaukee counties with an output from the mill operated by it of about 20,000,000 feet per year of lumber, with 5,000,000 shingles and a large quantity of lath. These operations continued until 1893, at which time their total production had reached 212,673,421 feet of lumber and a proportionate amount of lath and shingles, and the Cummer Lumber Company closed its operations. The firm of Cummer & Son drew their operations to a close in 1892, with a record of production aggregating 344,396,413 feet of lumber, the logs for which had been cut from the counties previously named.

The timber of this region was exceptional in its prolific yield, and as evidence of this fact we may cite individual instances illustrative of conditions which were not frequently encountered, and yet were to be found in various parts of the State. Section 5, town 21 north, range 8 west produced 27,324,186 feet of saw logs; section 1, town 21 north, range 9 west yielded 28,715,327 feet; section 25, town 22 north, range 9 west produced 28,824,977 feet, the three sections named aggregating a total of 84,864,490 feet, or an average of 44,200 feet per acre. Section 25, town 23 north, range 8 west was a still more prolific section, yielding no less than 32,706,000 feet. The timber of this tract was of large diameter and long length, it being no uncommon thing for a tree to yield three logs suitable for car sills of thirty or thirty-three feet in length.

In the fall of 1891, soon after the cessation of the operations already mentioned, the Cummer Company was formed and entered upon new fields of labor, purchasing the property of the firm of Lakies & Collins of Norfolk, Virginia, which consisted of a double band mill at that place, together with a large amount of standing pine in the state of North Carolina. The capacity of this mill is rated at 20,000,000 feet per annum, and there is in connection with it an extensive planing mill plant for the closer manipulation of its product in fitting it for the large trade which they have built up in the New England states. This planing mill is equipped with the most modern machinery, and has capacity for manipulating 96,000,000 feet per year, should a shipping and local trade demand. Mr. Cummer is also interested in extensive timber holdings in other portions of the south, including one tract of 103,346 acres of cypress and yellow pine land in Florida, which is estimated to produce one and a half billion feet of timber.

When Mr. Cummer first went to Newaygo the country was in its virgin condition, but limited lumber operations having as yet been inaugurated, while settlers were few and far between. He literally grew up with the country, which has since become populous with thrifty settlers, while cities, towns and villages, some of which occupy commanding positions of influence among the cities of Michigan, are found to extend to the northernmost bounds of the State.

Cummer & Son and the Cummer Lumber Co. have always ranked among the most enterprising and intelligent lumbermen of the State, and to them the inventors of new and improved appliances in lumber manufacture looked confidently, as being not only willing to avail themselves of new ideas, but as being willing to encourage the inventor by such practical tests as would demonstrate the utility of the invention. When the band saw was first introduced, about 1883, and when its utility was still a matter of question, W. W. Cummer placed a Stearns band (the first made by that company) in his mill, appreciating the great advantages in the saving of timber which must result from its successful operation. He was also the first to test and to adopt steam, or, as it is popularly known, "shot-gun" feed, for both band and circular mills. The mills so long operated by Mr. Cummer were torn down and a new and modern mill built on their foundations, being operated by the firm of Cummer & Diggins, in recent years being thoroughly modernized by the introduction of the latest devices for the saving of labor, including a Corliss engine of the most improved type, contrasting strongly with the engines and crude machinery of the early days so fully described in other chapters, and to a still greater extent with the limited power and crude methods in vogue in the days when the old flutter wheel and sash saw with a manufacture of five hundred feet per day is brought in contrast with the one, and even two hundred thousand feet daily, which is the product of a modern mill. In connection with the Cadillac mill a large and thoroughly modern planing mill plant is operated by the firm of Blodgett, Cummer & Diggins, Delos A. Blodgett of Grand Rapids being a party in the interest, Cummer & Diggins having upon the formation of their partnership entered into an arrangement with Mr. Blodgett for cutting the logs, manufacturing and marketing an estimated 325,000,000 feet of pine then owned by him in the vicinity of the former operations of their company, and so situated that the railroad system owned by them was available for its handling at the rate of about 50,000,000 feet yearly. Cadillac has had no more enterprising citizen than Wellington W. Cummer, nor one who has done more to promote the prosperity of the city. He is proprietor of its water supply and electric light systems, the former of which has capacity for supplyinig 6,000,000 gallons daily, while the latter operates one hundred and fifty arc lights of twelve hundred candle power, with twenty-three thousand incandescent lamps in business and private establishments.

Mr. Cummer was married in 1871 to Miss Mary Ada Gerrish of Hersey, and has two sons and one daughter. The sons, Arthur G. and Waldo E., are connected with their father in business at Norfolk, the former being in charge of the saw mill at Jacksonville, Florida, and the latter superintending the logging and railroad operations of the company. Each has had the advantage of a five-year course in applied mechanics at the university at Ann Arbor. Mr. Cummer is a Republican in politics, and is interested in the Cadillac State Bank, and in the Michigan Trust Company of Grand Rapids.

Cobbs & Mitchell.—During the year 1878 a copartnership was formed by Jonathan W. Cobbs and William W. Mitchell, at which time Mr. Cobbs owned and operated a saw mill on the banks of Clam lake and on the site of which mill Cobbs & Mitchell's mill No. 1 now stands and is in operation; Mr. Cobbs being then under contract to saw for George A. Mitchell, the firm continued sawing for him until 1880. They began operating in timber for themselves in a small way during 1878, sawing the same at their mill "No. 1" on the night trick. The capacity of the mill at that time was about 1,500,000 per month, running day and night. In 1881 their business was enlarged by the purchase of standing timber a few miles southeast of Manton, which had been obtained from Bradley Brothers of Milwaukee, Wis.

For the purpose of manufacturing this tract of pine a mill was erected at Round lake, about ten miles from Cadillac, on the Missaukee branch of the G. R. & I. railroad, the pine being brought to this mill over a narrow gauge railroad about five miles long. This mill continued in operation until April 15, when it was burned to the ground. The mill was rebuilt promptly as a single circular mill, and commenced cutting lumber again September 11 of the same year. This mill served its purpose, and was shut down for good on July 3, 1887, and soon afterwards was sold and removed to Arkansas.

The mill "No. 1" at Cadillac continued to operate, and in 1886 was rebuilt from the foundation and a combined circular and band mill of the Stearns Manufacturing Co. was put in, in place of the circular saw. The combined mill was operated until December, 1892, when an improved number 12 band mill of the Stearns manufacture was put in, and is in operation at the present time.

From the fact that this mill No. 1 at Cadillac was one of the first mills erected on the banks of this lake in the forest, after the arrival of the railroad into this territory, it would perhaps not be out of place to mention the names of a few men who have grown old in the service of the firm, around this old mill. The names of Nels Simonson, Isaac Sheler and Patrick O'Connell appear on the time-books of the firm from the very first of its existence, and they still appear on the time-books as regular monuments to their devoted service. Lou Taylor, the sawyer now on duty at this mill, who has been in that position for a long term of years, is deserving of mention, he having served in the capacity of sawyer for the Stearns Manufacturing Co. in their saw mill at the World's Fair, and who, on October 25, 1895, sawed at mill No. 1 103,997 feet in ten hours, which at the present writing is the best record we know of for a band saw in this territory. The superintendent, Henry Ballou, has been with the company for sixteen years. He has grown up with the business, of which he is now general superintendent.

In 1890 the firm increased their business by buying a large tract of standing pine from the G. R. & I. Railroad Co. in Grand Traverse county. This necessitated increased facilities for sawing, and mill No. 2 was built at Cadillac during the year 1891, it being a double band mill with a capacity for 100,000 feet per day. This mill, costing $45,000, was burned to the ground on July 15, 1891, about two weeks before it was ready to run, being insured for $27,000 under a carpenter's risk. A single band mill was rebuilt on this foundation and commenced sawing lumber December, 1891, but in 1892 it was deemed advisable to increase the capacity of this mill and another band was added to it, making it a complete double band mill by December, 1892.

The quantity of lumber manufactured by this firm up to January, 1896, is as follows: 1878, 2,933,000 feet; 1879, 14,300,000 feet; 1880, 14,734,000 feet; 1881, 15,346,000 feet; 1882, 18,384,000 feet; 1883, 27,704,000 feet; 1884, 19,947,000 feet; 1885, 14,292,000 feet; 1886, 13,860,000 feet; 1887, 20,564,000 feet; 1888, 13,800,000 feet; 1889, 15,645,000 feet; 1890, 8,632,000 feet; 1891, 21,000,000 feet; 1892, 26,500,000 feet; 1893, 24,790,000 feet; 1894, 18,565,000 feet; 1895, 23,000,000 feet, a total of 313,996,000 feet for the seventeen years.

The number of men employed by this firm during their existence has fluctuated from time to time, according to the extent of their operations and the market demand for material. At present there are 253 men employed by this firm, as follows: Fifty-five men around the mills; 55 in the lumber yards; 10 on the booms and docks, and 125 in the camps and on the railroads, with eight in the office and on the road as salesmen. It is estimated that with their present capacity for sawing, viz., 25,000,000 feet per season, they have standing pine to last them about two years yet. Regarding the personnel of the members of the firm we may mention:

Jonathan W. Cobbs, who was born February 25, 1828, near Salem, Columbiana county, Ohio. He was of Quaker parentage, and was one of a family of nine children of whom four still survive. His educational advantages in youth were limited to two terms of school in the district school near his birthplace, in all probably not exceeding six months. He remained on the home farm until seventeen years of age when he apprenticed himself to a wagonmaker in the town of Valley, Ohio, at the munificent salary of six and a quarter cents per day and board. At the end of the first year, however, his master having come to grief through some illicit operation, Jonathan started a shop of his own which he ran for several years. It was during this time that the Pennsylvania Railroad was being built through Ohio, and much of his work in this line was in making dump-carts for use in the grading of this road. In 1852 he determined to leave for Indiana, which was still considered in the light of a wild west. The largest part of this journey was made by river and overland by wagon, and was long and attended with considerable hardship. From early boyhood his mind had turned towards mechanics, and many of his idle moments were employed in the construction of water mills, with which he amused himself in the sawing of corn stalks. With such a bent, it was but natural that the oak and poplar forests of his new home should prove a great attraction, and it is not strange that he should have begun the construction and operation of a saw mill, or that his subsequent activities should have been almost wholly along this line. His destination in the new field and the scene of his future activities in lumber manufacturing in Indiana, was what is now known as the town of Butlerville in Jennings county. His first saw mill was of the mulay type, with a cut rarely equalling 3,000 feet per day. During his residence of twenty years in this State he built and operated four different saw mills, all located in Jennings and Jackson counties, and cutting largely oak and poplar. The last three years of his residence there he was engaged in farming, at which he was not successful. In 1872 he determined to dispose of his farm property and remove to northern Michigan, where the tremendous forest resources of that section were feeling the early impulse of development. He located on the shores of Little Clam lake in the five-building village of that name, now known by the name of Cadillac, and very soon after his arrival purchased from John R. Hale the saw mill property located on the bank of Clam lake and on the site of the present No. 1 mill of Cobbs & Mitchell. This mill was a single circular saw mill of the crudest pattern, with a capacity of about 25,000 feet per day—when it was able to run at all. Mr. Cobbs owned no timber until the partnership of Cobbs & Mitchell was formed in 1878, but devoted the intervening six years to the sawing of lumber on contract for George A. Mitchell.

Mr. Cobbs has been twice married. On November 26, 1850, he was married to Isabel Emily Blackburn in Columbiana county, Ohio. She lived only about three years, and there were no children by this union. On March 29, 1855, he was married to Nancy Jane Preble in Jennings county, Indiana. There were three children born of this union, of whom two still survive. In the fall of 1895 Mr. Cobbs' health failed him, and his business has since been represented by his son, F. J. Cobbs.

Frank J. Cobbs is the only son of J. W. Cobbs, and was born in Jackson county, Indiana, November 5, 1872. He received his preparatory education in the public schools of Cadillac, Mich., the preparatory department of Notre Dame university, and the Military academy at Orchard Lake, Mich., with a college course at Olivet college, Michigan, from which he graduated in the class of 1894. Immediately upon leaving college he entered the employ of Cobbs & Mitchell as bookkeeper, retaining that position for one year. In November, 1895, he undertook the organization of the Cadillac State Bank, and was elected president of the new institution, a position which he has since retained. Shortly after assuming his duties as president of the bank, his father's health having failed, Mr. Cobb became the representative of his father's interest in the firm of Cobbs & Mitchell, in which capacity he still continues.

Mitchell Bros.—Few enterprises afford better opportunities to men of ability and pluck than the lumber industry, a notable example of advancement in this direction being illustrated in the record of the well-known firm of Mitchell Bros. This is one of the leading firms in the State and its members are men of energy, perseverance and great integrity. The firm consists of Austin W. Mitchell and William W. Mitchell. In the year 1881 they purchased a tract of fifty million feet of standing timber at Jennings, Missaukee county, Michigan, on a branch of the G. R. & I. Railroad, and at this place erected one of the finest and best-equipped mills in the State. At the present time it has two band saws with a capacity of one hundred thousand feet, and up to 1892 sawed nothing but pine.

During this time they accumulated large tracts of hardwood and for the past few years have been sawing this. Since 1880 they have bought both hard and soft wood, and now have about a five years' supply for their mill. Since that year they have cut two hundred and eighteen million feet of lumber and are pushing the work right along. They have built thirteen logging roads, now having twenty-five or thirty miles of road, and are well equipped with logging cars, engine, etc. They employ seventy-five men in the woods, thirty-five in the mill, thirty-five in the yards and twenty-five in the planing mill. The

James Dempsey

planing mill and saw mill were built about the same time and the former is said to be one of the best in the state. They do a general planing mill business but make a specialty of maple flooring, and have a large sale of that class of goods. The milling business up to 1895 was known as Mitchell Bros. & Murphy, but in that year Mitchell Bros. bought out Mr. Murphy. The land and timber in Michigan is now under the name of Mitchell Bros. who also own a large tract of pine land in New Mexico. They are so well prepared at the mills, and their logging outfit is so satisfactory and complete that they can do better work in logging in the summer than in the winter and their mills are kept busy all the year round. In this vast enterprise they manufacture yearly from twenty-one to thirty-two million feet of lumber and their maple flooring is known from St. Louis to Portland, Me. This firm has two Shay locomotives on their logging roads and use the Russell logging cars. Mr. M. M. Spaulding started with the firm as bookkeeper and is still in their employ as is also S. H. Merritt, accountant, who has been with them for many years. Their office is in Cadillac.

Austin W. Mitchell, a prominent member of the above mentioned firm, is a native of Michigan, born at Hillsdale in 1852, son of Charles T. Mitchell, (a banker of Hillsdale) and Harriet (Wing) Mitchell. Austin received his education at Hillsdale College and in the University at Ann Arbor. In 1873 he was appointed U. S. deputy collector of internal revenue and discharged the duties of that position three or four years. Later he engaged in the retail lumber business until he made the purchase of timber lands and came to Cadillac, since which time he has made his home there. He selected his wife in the person of Miss Bertha Spalding of Greenville, Michigan, and two children have been born to them. In politics Mr. Mitchell is a Republican. He has held the office of alderman, is a member of the school board and is a public-spirited and progressive citizen. He is a director in the Cadillac Handle Factory and is interested in other enterprises.

William W. Mitchell is another man who has achieved success in the pine forest of Michigan and he is an active member of the firm of Mitchell Bros. He is one of the most prominent lumbermen of the State and is thoroughly familiar with this great industry in every particular. He resides at Cadillac, where he located in 1873, and although then just out of school and with little means at his disposal, he had the grit and determination to push his way to the front in the lumber business and has been most eminently successful. He was first employed as a tally man for his uncle, George A. Mitchell, and in the fall of 1873 went into the woods as a laborer, acting as teamster and swamper. During the summer of 1874 he was foreman in a small lumber yard at Clam Lake, and in the fall of that year he with others entered into a contract to put logs into Clam Lake for the mills. This he continued for two years. Later he was foreman for George A. Mitchell, having charge of the logs and lumber departments. With an eye to the future he saved his wages and when the chance offered, purchased pine lands. In 1877 he formed a partnership with J. W. Cobbs who already had a saw mill at Cadillac, and this has continued to the present time, the firm being known as Cobbs & Mitchell. They purchased as one of their earliest ventures a tract of 276 acres of pine land, and Mr. Mitchell bought a one half interest in the mill of Mr. Cobbs with capacity for cutting forty thousand feet a day. At the end of seven years they owned and operated a saw mill at Round Lake, and in 1892 they built a second mill at Cadillac which had a capacity of eighty thousand feet a day. They now have about five years' supply of pine and hardwood timber. Mr. Mitchell is also associated with his brother Austin W., under the firm name of Mitchell Bros., and is interested in other enterprises, one of which is as a stockholder in the Cadillac Handle factory. He takes a deep interest in the welfare and upbuilding of Cadillac and every worthy local enterprise has had his support. Mr. Mitchell was born at Hillsdale, Michigan, June 3, 1854. His grandfather, Charles T. Mitchell, Sr. was a native of the Empire State and died when a comparatively young man. Charles T. Mitchell, Jr., the father of our subject, came to Michigan when a young man and here has resided since. He was a contractor on the Lake Shore & Michigan Southern Railroad for some time, but later became a grain merchant, then a hardware merchant, and for twenty-five years was president of the Second National Bank of Hillsdale. In politics he is a Republican and he was a member of the electoral college that chose Lincoln for President, his second term. Like his brother, William W. Mitchell received the most of his schooling in the college at Hillsdale and is almost wholly a self-made man. In the year 1876 he married Miss Ella Yost, daughter of George Yost, of Hillsdale, and they have two children, Charles L. and Marie E. Their home is one of the finest in northern Michigan. In politics Mr. Mitchell has followed in the footsteps of his father and is an ardent Republican. He is a careful, shrewd and practical business man, one of the leading ones of the state. A leader in all enterprises of moment, he was one of the prime factors in building the fine drive of seven miles in length which has been constructed around Clam Lake.

Delos F. Diggins, of the well-known firm of Blodgett, Cummer & Diggins, is a product of the Prairie State, born in Harvard, McHenry county, May 16, 1852. His early scholastic training was received in the common schools and later he entered the commercial college at Grand Rapids, Mich. His father, Franklin Diggins, died in Michigan in 1891. In the year 1876, Mr. Delos F. Diggins began merchandising at Hersey, Osceola county, Michigan, and followed that until 1883 when he went to Cadillac and engaged in business with the firm of D. A. Blodgett & Co. They established a bank, and he gave his attention to this up to 1892, filling the position of manager. In 1892 the firm of Blodgett, Cummer & Diggins was formed and the lumber business engaged in most actively. The mills are located at Cadillac, the first one of the two being built in 1892, the other in 1893. The capacity of these mills is one hundred and seventy-five thousand feet per day. Mr. Diggins is well posted in all that relates to the lumber industry, having while merchandising at Hersey bought logs and handled lumber, shingles, etc., and in 1893 turning his entire attention to lumbering. In politics he is a Republican. He married Miss Esther C. Gerrish; he has a brother, Fred A. Diggins, who is now in the lumber business in Cadillac. The brothers form the firm of F. A. Diggins & Co. which was established by them in 1887, when they bought the D. E. McEntyre mill at Cadillac which they at once remodeled and put in a band saw, giving it a capacity of 50,000 feet per day. The mill is located on the south bank of Little Clam lake and is cutting hardwoods, oak, maple, basswood, cherry and other woods native to Michigan. They have a large trade in maple, and their trade in lumber extends over a large scope. They sell in Grand Rapids and Southern Michigan markets as well as to dealers in Ohio, Indiana and other states. Of hardwoods they handle yearly about 5,000,000 feet, and when handling pine their cut is much greater. They employ 35 men in the mill and yards and a large number in the operation of their camps in the neighborhood of Cadillac, and rank among the leading shippers in that section of the state. Fred A. Diggins (brother of Delos F.) was born at Harvard, McHenry Co., Illinois, July 8, 1862, and in that section was well educated. Subsequently he engaged in the lumber trade in a mill owned by his brother, Delos F., at Hersey, Michigan, in 1884, and here became thoroughly familiar with the lumber business; later, in 1887, with his brother forming a partnership as above mentioned. Mr. Diggins is a Republican in politics and has held a number of positions of trust in this city. In 1892 he was mayor of Cadillac and also was a delegate to the National Convention. He married a daughter of Jacob Cummer who is one of the leading pioneer lumbermen of the state, as previously noted.

CHICAGO AND WEST MICHIGAN R. R.

The Chicago & West Michigan road starting at New Buffalo on the boundary between Michigan and Indiana and practically following the shore of Lake Michigan to Holland City and Muskegon, thence north to Pentwater, and northeast to Big Rapids, penetrates the southwestern and western limits of the original pine belt of the state, and while partially covering a section to which access could be had by lake shipment, opened up a considerable territory which, even in its southernmost course, was too far removed from lake shipping facilities to permit of a great expansion of lumber production. The earliest mill of which we find record, credited to this line of road, is that of A. B. Bowen & Co., at Whitehall, which was a circular rated in the reports as of 6,000,000 feet capacity, and while this locality, including Montague and Pentwater, are elsewhere treated of as lake ports, their production has largely been included in the statistics of the railroad and they will be so considered for the purpose of this history.

Of the earlier mills in the region traversed by this road we find record of one built in 1847 by F. Miles at Hartford, Berrien county, running one upright saw. In 1848 Pauls, Van Petten & Co. had a mulay mill at Holland, rated at 2,000,000 feet per year. In 1850 Heald, Avery & Co. built a mill at White river, which was a large mill for the day, being rated at a capacity of 8,000,000 feet. In 1855 J. W. Norton had an equally large mill at Montague, or one in which one mulay is rated at 8,000,000 feet. In 1856 Heald, Avery & Co. had a mill of 8,000,000 feet capacity running one mulay saw at Maple Grove, and J. Van Dyke a mulay mill at Holland rated at 1,500,000 feet. No other mills are noted until 1864 when A. J. Underhill built at Pentwater, no statistics being given until 1874 when he is credited with a cut of 8,000,000 shingles, and no lumber. In 1865, Ferry, Dowling & Co., 12,000,000, and A. B. Brown & Co., 6,000,000 are noted at Montague and Whitehall respectively. D. C. Bowen & Co. 2,000,000 feet of lumber and 15,000,000 shingles (1874 report); Charles H. Cook & Co. with one mulay and 8,000,000 feet capacity, are noted at Montague, with A. J. & C. E. Covell 6,000,000 at Whitehall. In 1867 we find James Dalton & Bro. at Montague with one upright saw rated at 12,000,000 capacity, also J. Alley & Co. 12,000,000 at Alleyton, and Peter Vyn 2,000,000 at Zealand. In 1868 the records show the Tioga Manufacturing Company having one circular of 4,500,000 feet capacity at Big Rapids; Moulton & Kerr at Pentwater, 3,000,000 capacity; Ferry, Dowling & Co., at Montague, a shingle mill of 8,000,000 capacity, and W. G. Brown & Son, at Breedsville, with capacity rated at 1,500,000 feet.

These seem to have been the pioneer mills of this section and from 1870, with the building of the railroad into this region, mills multiplied rapidly, so that the statistical record for 1873 gives the Chicago & West Michigan road credit for a production of 50,600,000 feet of lumber and 80,000,000 shingles, with seven saw and eight shingle mills at Big Rapids; one saw and shingle mill at Hungerford; one saw and shingle mill at Morgan; one at Alleyton; one at Holton; four at Pentwater; four at Fremont; one each at East Golden, Worcester, Norwich and Twin Lake; three at Woodville; six at Montague; six at Whitehall; one each at Fruitport, Zealand, Hudsonville, Jenison, Sherman, Blandon, Deerfield, Stevensville, Shelby, Clyde Center, New Era and Watervliet; three at Nunica Junction; two at Robinson's; three at Holland; two at Grand Junction; three at Breedsville; two at Coloma; three at Hartford, and two at Benton Harbor; a total of eighty-one mills, which figure in the reports of 1873. The cut reported for 1874 was but 40,615,000 feet of lumber, and 106,000,000 shingles, the figures dropping to 28,750,000 feet of lumber and 65,500,000 shingles in 1877, at which time the financial pressure in the country reached its culmination. From this date the lumber production increased with rapid bounds until 1882, when the reported cut reached 206,911,000 feet of lumber and 134,077,000 shingles which was the culminating record, each year showing a decided reduction in volume until 1892, when but 97,820,717 feet of lumber and 96,344,000 shingles were reported, each of the following years showing a decided decrease until the report for 1896 gave a return of but 8,489,000 feet of lumber and 15,000,000 shingles as the cut of the mills upon this line, its total recorded production since 1873 being 2,101,724,174 feet of lumber and 2,184,616,500 shingles, which reduced to logs would aggregate 2,377,801,236 feet of saw logs, to which we may safely add 200,000,000 feet for manufacture previous to 1873 and give this line of road credit for a production fully equalling 2,600,000,000 feet up to 1896.

While the resources of this line so far as white pine timber is concerned are practically exhausted, lumber from gleanings of pine, and the manufacture of hardwood, will no doubt continue in restricted quantities for many years to come. The region traversed by this road is mainly the valley of the Muskegon river, and the denudation of the forests for the supply of the vast manufacture noted in the chapter on Muskegon, must be taken into consideration.

The section of country south of Muskegon traversed by the said road being upon the border line between the pine and hardwood timber belts, has never figured to a large extent in the production of lumber available to railroad carriage, Saugatuck, with the Kalamazoo river, and South Haven on the (practically) southern limit of pine growth, enjoying shipping facilities by the lake to Chicago and other wholesale markets. While the Chicago & West Michigan road has enjoyed somewhat of a log transportation business, no statistics can be given, and the sum total is included in the production of lumber at Muskegon and other points, which now mainly rely upon rail transportation for their log supplies, which as compared with their past history are of a meagre character, as will be noted from the statistics of those sections.

Darrah Brothers & Co.—Although the mill now owned and operated by the members of this firm at Big Rapids, Mich., is a flouring concern, yet these gentlemen have been so closely connected with the lumbering interests of the State that to leave their names out of this volume would be as great a loss as the play of "Hamlet" with the character of Hamlet left out. Charles M. Darrah was born at Beaver Brook, New York, June 19, 1831, and when a child was taken to Pennsylvania by his parents, Robert and Sina (Mitchell) Darrah, the former a native of New Hampshire and the latter of Massachusetts, their ancestors having been early colonists of this country. Their first removal was to Jefferson county, Penn., where the father was engaged in lumbering and farming, until his removal to Michigan. Here Charles M. Darrah began working in the woods, and in due course of time became one of the most expert contractors and skillful loggers of which the State could boast. In 1869 he took a contract to put in 2,000,000 feet of logs in the town of Colfax, for Wilson & Boyce of Muskegon; in 1870-1, 1,500,000 for the same firm, and at the same time 2,000,000 feet on Wolf Creek, the logs being sent down Muskegon river, from Roscommon county, necessitating the employment of about seventy-five men, four yoke of oxen and fifteen span of horses; in 1872 he put in 3,000,000 feet on the Clam river, for Roberts & Hull; the next winter in the same place, with the same firm, he put in 4,000,000 feet, and again the following winter put in 2,700,000 feet. In this time he cleared 880 acres of land and handled fully 10,000,000 feet of timber. In the winter of 1876 he put in 4,000,000 on the Clam river, for Rutherford & Anderson of Muskegon, 3,000,000 feet in Muskegon river at Austin, for the Newaygo Lumber Co., and the next winter went on Flat river, in Montcalm county, where he put in 3,000,000 feet for Webster & Bachelder, and during the next three years lumbered nearly 10,000,000 feet. The next winter he put in nearly two million feet in Osceola and Mecosta counties, and in 1887 did his last logging of any importance, putting in about 1,000,000 feet for Wilson Stickney, of Big Rapids. The next year he superintended the Muskegon river drive, and had from 250 to 300 men under him, and the job occupied the entire summer. This drive comprised the largest number of logs ever floated in that river at one time, there being over 700,000,000 feet. He took a contract to drive Clam river in 1873-4, also in 1880, contracting on a basis of 25 cents to $1.00 per thousand, according to the distance for which each company paid for their individual logs. He had charge of the drive on the Little Muskegon river in 1878-9 for the Muskegon Boom Co., but the following year the Benjamin dam broke at the head of the Little Muskegon river and he managed the drive for the boom company at $10 per day. The bursting of this dam flooded fully 2,000 acres of land, but it was afterwards rebuilt and is still in existence. During all these years Mr. Darrah conducted his farm during the summer months, with the exception of those years spent in log driving, and in his absence he had an able general in his good wife, who carried on the farm as capably as he could himself. His farm is located about six miles from Big Rapids and comprises 240 acres, while in all he has 1,400 acres. In 1882 he purchased, in company with his brother, James M. Darrah, the Tioga flouring mill at Big Rapids, large quantities of wheat being now raised in the county, since which time he has spent the most of his time in traveling in the interests of this mill, the product of which is of a high grade. His wife was formerly Miss Sarah E. Hall, of Jefferson county, Pennsylvania, to whom he was married in 1853. To them four sons have been born, three of whom are living—Wilson E., Melvin E., Charles J., and James H., who was born Aug. 28, 1854, and died April 5, 1866. Since 1882 he and his family have resided in Big Rapids, where they have a very pleasant and comfortable home.

James M. Darrah, the junior member of the firm of Darrah Brothers & Co., was born in eastern Pennsylvania, March 4, 1835, and received such educational advantages as the district schools afforded. After his removal to Michigan he spent three years in lumbering in the pineries, three years with a firm in Muskegon and nine years with the firm of Roberts & Hull, of the same place, in the capacity of boss of the scaling department. In 1872 he bought 160 acres of land, and the timber taken therefrom in that winter amounted to 2,300,000 feet. The same winter he visited his old home in Pennsylvania, and on his return the following spring had charge of the drive on Ryan Creek, which was in the neighborhood of 4,000,000 feet in quantity. The following fall he and Frank S. Robins purchased a tract of land in the vicinity of Round lake, from which about 3,000,000 feet was obtained the following winter. John McNaughton then purchased Mr. Robins' interest, and he and Mr. Darrah continued lumbering together for three years, the first year for Elisha Eldred and the next two years for O. P. Pillsbury & Co. Their work was on Round lake and Ryan creek, and after their partnership was dissolved Mr. Darrah spent three years lumbering on Flat river for Mr. Bachelder, and was for four years on the same tract for the Akeley Lumber Co. of Muskegon. Two years were then spent in logging in Roscommon county, after which he and George Sellinger built a railroad ten miles long into the forest, and during the two years that they were together they put in 22,000,000 feet. Mr. Darrah then became sole proprietor of the business, but in a short time closed his business at this point. For two years following he put in logs for Hackley & Hume, and was then for two years with Hovey & McCracken of Muskegon. In 1894 he was an employe of the Gale Lumber Co., and since 1882 has been his brother's partner in the flour milling business. For the past twenty years, during the summer months, he has been engaged in tilling his farm, but at the present time he devotes much attention to his milling interests. Soon after they became the owners of this mill they put up a large addition, with a full roller process, but after it had been in operation about six months it caught fire and was burned to the ground. It was but partly insured, but they immediately rebuilt the mill on a larger scale, and it now has a capacity of about 125 barrels per twenty-four hours. The brands familiarly known are the "Pearl Patent," "White Lily" and "Thistle Down," all high grade flours and popular.

The surrounding country, although in the earlier years supposed to be worthless for agricultural purposes, has developed into an excellent farming section, the wheat of which is of high grade, while other grains, together with fruit, have demonstrated the falsity of the theory that pine lands are worthless after the timber has been cut off. Mr. Darrah was married November 11, 1874, to Miss Emma Gore, by whom he has four children: Grace E., Ethel E., F. Hazel and Carl W. Two other children died in infancy. The Darrah Brothers are fine business men and their accumulations are due to their own energy, rightly applied, and no men in the community stand higher in the estimation of their fellows.

Martin P. Gale was born at Barre, Vermont, November 20, 1846.

His father, Lewis Gale, is at this writing living upon the old homestead where he was born in 1817. He is a representative of the old Colonial stock which bore so important a part in the war of the Revolution, his grandfather having been a soldier in the French and Indian war and a lieutenant in the Revolutionary war.

Mr. Gale, after being educated in the schools and Academy of Barre, immediately took a position as clerk with John P. Davis at Northfield, Vermont. After two years he went to Alabama as clerk in a mercantile establishment, remaining until 1868, when he took a situation in the clothing house of Philip Wadsworth & Co., of Chicago.

Returning east in 1870, he entered the employ of Skillings, Whitney and Barnes, at that time engaged in an extensive clothing business in Boston.

In 1871, Mr. Gale went to Michigan and there formed a partnership with B. A. Webster for the manufacture and sale of shingles, which partnership, however, continued only for one year, when Mr. Gale entered the employ of the Tioga Manufacturing Co. of Big Rapids, then doing a large business in the manufacture of lumber.

In 1875, he formed a partnership, existing for but one year, with Joseph O. Hudnutt, the firm dealing exclusively in lumber. On November 21, 1876, Mr. Gale was married to Miss Kate E. Griswold of Buffalo, N. Y., they having two children, a daughter, now nineteen and a son sixteen years of age. Mr. Gale purchased in 1876 a one-third interest in the Leroy Lumber Co. of Leroy, Mich., which firm later becoming well-known in lumber circles as Hood, Gale & Co., continued in operation until 1890 when it was dissolved. For the next two years Mr. Gale's attention was devoted to a project for the manufacture of veneering at Kinzua, Warren county, Pa., then, returning to Michigan, he was elected president of the Northern National Bank of Big Rapids, of which for some years he had been a director. In August, 1893, he organized what has since been known as the Gale Lumber Co.

Mr. Gale has occupied responsible public positions, having been elected mayor of Big Rapids for three consecutive terms; he was a member of the State Legislature in 1881, and also a delegate to the Republican National Convention which in 1884 nominated James G. Blaine for president.

In religious belief, Mr. Gale is a Unitarian; he is a member of the Knights of Pythias, and a man of public spirit, to whom the city of his adoption is largely indebted for his unremitting efforts for the advancement of the public weal.

Hon. John Adams Brooks, of Newaygo, was born at Haverhill, New Hampshire, May 14, 1803. On February 26, 1826, he was married at Stanstead, Lower Canada, to Miss Lucina Parsons by the Reverend Charles Lepore, of Sherbrooke, Lower Canada. Five children were born to them, Ellen M., John A., (who died in infancy), John A., second, Martha A. and Mary A. In 1835 Mr. Brooks decided to seek a home in the then far west, and went to Michigan. He was possessed of great energy of character, and overcame obstacles which would discourage men of less perseverance. Before the surveyor's compass had traversed this region Mr. Brooks, with a small party, explored the country from Grand Rapids north to Traverse Bay, and minutely examined the Muskegon, White, and Manistee rivers and their tributaries, which in effect gave the first impetus to the settlement and development of northwestern Michigan. In 1837 he located at Newaygo, the first permanent settler at this place, and engaged in the lumbering industry, building a saw and grist mill, which as early as 1860 is elsewhere mentioned as being operated by Jacob Cummer, Mr. Brooks entering the army about that time. In 1844 he moved his family to Newaygo, which became their home. Mr. Brooks was a strong Republican, his public spirit, sagacity and business enterprise, brought him positions of honor. He was twice elected to the Legislature, in 1856 and 1858, and several times held the office of supervisor of the township of Brook, which was named after him. John Adams Brooks died at Newaygo, May 26, 1866, at the age of sixty-three years. The disease which terminated his life was contracted in the service of his country during the rebellion, in which he enlisted as quartermaster at the age of three-score years. Kind and generous, he had many warm friends, especially among the first settlers, who were sincerely grateful for the many acts of kindness and friendship to them at times when they were most acceptable.

* * *

CHAPTER XXI.

LEADING POINTS OF DISTRIBUTION ON THE LAKES.—BUFFALO AND TONAWANDA.

VAST quantities of the forest products of Michigan and Wisconsin, as well as those of the Georgian Bay, have found market in eastern cities and southwestern markets through the facilities afforded by the Erie canal at Buffalo and Oswego and various canals penetrating the interior of Ohio from Lake Erie ports, and of the more important of these points it is the promise of this chapter to make brief reference.

BUFFALO AND TONAWANDA.

Lying as it does at the foot of Lake Erie, Buffalo has for many years been the entrepot of a large proportion if not the bulk of the shipments of the grain, produce and forest production of the west, it being the most convenient locality at which the vast western trade, seeking an outlet to the east, could find reshipment from the lake craft loading at various ports upon the chain of lakes, and by means of the Erie canal find its way to the cities of the east and thence find distribution to the consuming markets of Europe and other foreign countries, as well as to the eastern portion of our own country. Buffalo also, from the earliest, was the great gateway through which emigration from the east, found its way to the prairies of the west. The palatial steamers which from 1840 to about 1860 carried thousands of hardy pioneers, who sought business or homes in western Ohio, Indiana, Michigan, Illinois and other western states, have never been exceeded for comfort or elegance of fitting by any craft which have floated the waters of Europe or America. With the construction of railroads on the south shore of Lake Erie, and through western Canada, the usefulness of these floating palaces naturally came to an end, and since about 1860 they have wholly disappeared, only, however, to give place to the no less useful, if not so highly ornamental, freight propellers, which, yearly increasing in size, have at this time reached the proportions of ocean steamships, it being nothing unusual to see a score of craft carrying from one thousand to as high as forty-five hundred tons each, unloading at the grain elevators or iron ore docks of Buffalo, or taking on the immense cargoes of coal which is demanded for the use of the cities and prairie settlements of the west. The several enlargements of the Erie canal from time to time, have greatly facilitated the immense traffic which has yearly increased, notwithstanding a corresponding increase in the carrying capacity of the various lines of railroad, which, forming through routes from the far west to the farthest east, have proved formidable competitors, while the growing trade of the west has not failed to tax the ever increasing carrying capacity of both water and land means of communication.

Up to the early 50's the port of Oswego on Lake Ontario was the favorite shipping point for the lumber of the west, including the limited shipments from Lake Huron, as well as from Lake Erie points, in fact the bulk of the timber which found market in the east, was manufactured at Canadian mills, with which the shores of Lake Erie were dotted from Grand River to Port Dover, Port Rowan, Sand Hills and Port Burwell, while the country west of Port Stanley to Rond Eau and the Thames river emptying into Lake St. Clair, was prolific in the production of oak timber and staves, black walnut and other lumber, nearly all of which reached Oswego or Kingston, for re-shipment to Albany in the one case and Quebec in the other.

About 1854-5 lumber shipment from Michigan and Green Bay became more extended, and with an increasing trade from these points to Buffalo, the Canadian mills on Lake Erie shores turned their products in increasing quantities to the port of Buffalo, and Oswego lumber shipments were shortly confined wholly to the Canadian mills of Lake Ontario.

While no statistics are available showing the receipts of lumber at Buffalo previous to 1863, a rough estimate would place them at not exceeding 20,000,000 feet in 1850, reaching 50,000,000 in 1855, increasing to 75,000,000 feet in 1862, and to 90,143,000 feet in 1863 when the first statistical record is available. Of this quantity 80,249,910 feet are noted as shipments to the east. The increase at the port of Buffalo subsequent to 1855, was largely the result of the passage of the reciprocity bill, which took effect on the first day of July in that year, and under which for the next ten years Canadian lumber was admitted to the United States free of duty. It was also during this period that the abnormal development of lumber manufacture in Michigan occurred, leading eastern lumbermen to seek the excellent product of the more westerly fields of production. In 1868 the receipts at Buffalo had reached 208,047,862 feet, the shipment being stated at 166,589,710 feet; the receipts of the following year being 224,935,748 feet, and the shipments 165,197,178 feet. During this period between 1863 and 1872, the receipts of shingles averaged about 30,000,000 per season, and those of oak staves about 23,000,000 yearly, the aggregate of the former during the ten years being stated at 300,000,000 and those of the latter 232,792,139. While Buffalo could in no degree be considered as a manufacturing point, so far as lumber is concerned, it for many years supported two saw mills, one of which ran a circular and mulay, and the other a circular and a sash saw, with a manufacture of about 6,000,000 feet yearly, principally in local bills and railroad timber; these mills were operated by Jerome Pearce & Co. who also had a shingle mill producing about 25,000,000 shingles yearly, and Laycock Bros. whose saw mill cut about 2,000,000 feet per annum. The

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log stock for these mills was obtained in rafts from Canadian points, H. P. Smith and others, during many years, bringing rafts of long timber from Big Creek in Norfolk county, Canada, which was the principal supply point of the day, the rafts being put together with hickory withes and heavy binding chains, for towage on Lake Erie. In addition to the large quantities of lumber, shingles and staves which reached Buffalo mainly for shipment to eastern points, split hoops to the extent of about 25,000,000 per season, barrel headings and shooks (staves prepared for use and made into bundles), to the extent of 100,000 setts per year, with railroad ties to the extent of 150,000 per year, were a feature of the receipts.

Among the earlier dealers of Buffalo and contemporaneous with the trade of 1850 to 1860, were Selim Sears, Seth Clark, Jerome Pearce, Blossom & Skinner, Joseph Van Vleck, Oliver Bugbee and Harvey Mixer; William Hawkins and John S. Noyes dating from 1853 and 1855. In 1853 Farmer De Blacquier & Deedes, who had extensive mills on Big Creek, Canada, established James N. Scatchard and —— Belton as their agents at Buffalo, and about this time James R. Smith of the later firm of Smith, Fassett & Co. of Tonawanda, together with Harrison Mixer, (brother of Harvey Mixer) formed the firm of Mixer & Smith. All of the parties and firms named were engaged largely in the forwarding and commission business, as well as in the sale of lumber. Still earlier in the trade, were Wheeler Hotchkiss (1840), Dodge & Baldwin (1842), Charles Tainter (1843), P. B. & L. L. Eaton, planing mill (1845), Selim Sears (1845), Jerome Pearce (1846), James A. Perry (1848), Jacob S. Semon (1849), Seth Clark, Harry Mixer and J. H. Headley (1850), E. & B. Holmes, Jeremiah Thistlethwaite and Blossom & Skinner (1852). J. N. Scatchard in 1857, succeeded to the business of the Farmer, De Blacquier & Deedes Co., Mixer & Smith succeeded H. Mixer in the same year. John S. Noyes and William Hawkins became Hawkins & Noyes in 1853, being succeeded by Noyes & Roby in 1854, and they by Noyes & Reed in 1861. Smith & Fassett succeeded Mixer & Smith, John N. Scatchard & Son succeeded J. N. Scatchard, and in 1856 Moses Smith succeeded Dodge & Baldwin (1842). With this chronological table, and the list of present operators later mentioned, the personnel of the Buffalo lumber trade may be considered practically complete.

Statistics of the earlier business of Buffalo previous to 1873 are largely lacking, but from that date to and including 1895, the reported receipts at that point aggregated 5,127,250,400 feet of lumber, (no reliable shingle figures being available), or an average of 223,000,000 feet per year. An estimate for the period 1840 to 1873 may safely be named at 2,000,000,000 feet, while with no reliable statistics upon which to base figures regarding shingles and lath, we venture to place the total volume of the lumber trade including those products, to be credited to the port of Buffalo, at no less than the equal of 10,000,000,000 feet of lumber. With no positive data upon which to base a statement of the shipments or local consumption embraced in these figures, it is probable that 75 per cent of the total receipts at Buffalo were shipped to the east via the Erie canal, large and increasing quantities in later years finding transportation by the various lines of railroad centering at this point. These figures in all their vastness by no means exhaust the importance of the eastern end of Lake Erie as a point for the receipt and shipment of forest products, as will be seen in the statistics which we present in connection with Buffalo's sister city of Tonawanda, the rise and growth of whose trade is in no small degree due to the enterprise of Buffalo lumber dealers, who at an early day discerned the fact that the limited capacity of Buffalo Creek would soon prove wholly inadequate for the transaction of the vast volume of shipping which the growing west was rapidly crowding upon the port of Buffalo, and the necessity of removing a large portion of the bulkier products to a point where it could be handled with equal facility, and thus lessening the congestion of trade confined within the circumscribed area of Buffalo harbor, and Tonawanda, about ten miles down the Niagara river, was at once seen to be the point of availability.

How slight the circumstances which sometimes lead to great results is illustrated in this connection. In 1856 the writer (who was then engaged in the purchase of lumber at Port Dover, Canada, shipping to the Albany market), in connection with John S. Noyes of Buffalo, became the owner of the schooner "Flying Dutchman" which in the early spring of that year took on a cargo of lumber for Buffalo, and was caught in an immense body of ice at the head of Niagara river and was unable to enter that port, casting anchor in the stream. The rapidly rushing current of the river carried vast fields of ice, and one chain after the other giving way under the pressure, nothing remained but to float with the current and endeavor to beach the vessel before she should become engulfed at the falls. Success attended the effort, and the vessel was run on shore between Black Rock and Tonawanda, at a point which was sufficiently convenient for the transference of the cargo to a canal boat, the canal being but a short distance from the shore. It was some years later that this circumstance was recalled by Mr. Noyes and others interested, and without doubt was a factor leading to investigation and the conclusions which resulted in establishing Tonawanda as an important lumber city, rivaling Buffalo in the extent of its receipts and shipments.

The navigation of the lakes up to 1862 was almost wholly confined to side wheel steamboats and sailing craft, and these latter had little business in the rapid waters of the Niagara river except by the aid of tugs, whose charges for towing greatly reduced the profits of a trip, so that Tonawanda freights were not considered highly desirable. With the rapid extension of railroad lines west from Buffalo, the palatial steamers which for thirty years had increased in size, magnificence and numbers from year to year, became useless property and were laid up at docks at Buffalo and Detroit, to go to decay. Towing upon the lakes had to this time been confined to log rafts with perhaps an occasional perilous experiment of towing the hull of a new vessel from the point of her construction, to Buffalo or Cleveland to receive her rigging, but this involved sleepless nights on the part of her owners, until her safe arrival was assured.

In 1861 John S. Noyes purchased for a nominal sum, the hulls of the steamboats Empire and Sultana, former floating palaces, then sunken at Detroit, and fitted them up at an expense of several thousand dollars each, for the experiment of towing them, lumber laden, from the now rapidly developing lumber district of Saginaw, through lakes Huron and Erie to Buffalo. The average cargo of the Empire was 700,000 feet, and that of the Sultana about 500,000 feet, in contrast to the average vessel cargo of about 200,000 feet. The venture was looked upon with great suspicion not only by shippers, but by the insurance companies, whose agents saw, or thought that they could discern an extra hazardous risk in a vessel depending wholly upon even an extra large hawser or tow line to keep company with a steam tug, which perchance might have all she could do to save herself from the fury of the elements. These objections were, however, speedily demonstrated to be unfounded, and with the success of the venture, a new industry or enterprise was inaugurated. In 1862 the steamboat St. Lawrence was added to the line, and with her advent the writer of this history became associated with the firm as their agent at Saginaw. Other parties soon secured other of the old steamer hulls for a similar use, while a large number of sailing vessels which had reached an age when the strain of mast and canvas rendered then unseaworthy, were converted into tow barges. It was not long before the ordinary lake tug used for towing these craft gave place to steam barges, which not only towed from one to five other barges, but carried cargoes themselves, usually of a size the freight upon which paid a goodly proportion of the expenses of the round trip, and but a few years elapsed before sailing vessels practically disappeared from the lakes, their places being taken by towing and towed barges, while with the wreck or disappearance of the old hulls which had been extensively utilized at an early day, their places were taken by craft built expressly for the purpose, which with the increased demands of growing trade, have in later days been of from 1,500 to 4,000 and 5,000 tons burden, and the vast trade of the entire chain of lakes from Duluth at the head of Superior to the foot of Lake Erie, is now carried on by huge propellers, a majority of which have from one to a half dozen consorts in tow. And this reminds us again of the stranding of the "Flying Dutchman" in the swift currents of the Niagara river in 1856, which, perhaps, somewhat remotely to be sure, may be said to have been the first in the current of events leading to the remarkable developments of a later day, among which was the calling attention in 1865 to the desirability of Tonawanda as an adjunct and relief to the by this time plethoric condition of Buffalo harbor.

The lumber trade in Buffalo in 1897 was represented by the membership of its Lumber Exchange, which is as follows, viz.: Scatchard & Son, Mixer & Co., Haines & Co., Lee, Holland & Co., W. W. Brown, Hurd & Haughenstein, Noyes & Sawyer, E. D. Colie, Hurd Bros., Laycock Lumber Co., W. S. Crossthwaite, G. Elias & Bro., C. M. Betts & Co., Faust & Fleming, Holland, Graves & Montgomery, Palen & Burns, Superior Lumber Co., D. Y. Leslie, Hugh McLean & Co., Buffalo Hardwood Co., Empire Lumber Co., Taylor & Crate, W. W. Reilly, Underhill & Poole, G. W. Folger, Tindle & Jackson, James Fenton, Arthur Hill Lumber Co., L. P. Graves.

TONAWANDA.

Tonawanda is located on the Niagara river about ten miles from Buffalo, and on the direct line of the Erie canal, which was the important factor leading to its selection as a suitable place for the receipt and shipment of lumber to the east. The current of the Niagara river is too strong to render sailing craft available, but when the era of tow barging was inaugurated, and vessels were rendered independent of the wind through the medium of steam, the objections to delivering cargoes at points upon its banks had been surmounted. About 1866 Thomas W. Hotchkiss, a brother of the historian, and from 1847 a retail lumber dealer at New Haven, Ct., and later a wholesaler of lumber at Albany, subsequently operating at Elmira, New York, and as far west as Saginaw, secured a location at Tonawanda, and built docks for the reception of lumber and its re-shipment by canal. He was soon after followed by John S. Noyes and others, and the lumber trade at this point rapidly acquired large proportions, so that by 1873 the volume of receipts was represented by 221,076,007 feet of lumber, 23,249,000 shingles and 5,126,000 pieces of lath, and these proportions were practically held until 1880, when the volume had increased to 323,370,814 feet of lumber, 22,920,000 shingles, and 1,282,000 pieces of lath, increasing from year to year until in 1890, when a volume of 718,650,814 feet of lumber, 52,232,300 shingles, with 13,039,600 pieces of lath are recorded, this being the culminating point. During the twenty-three years between 1873 and 1896 we find record of 9,592,879,270 feet of lumber, 908,968,200 shingles and 170,908,450 pieces of lath as the sum total of receipts of lumber, lath and shingles at this point. Reducing the shingles and lath to lumber, and adding an estimated quantity of one billion feet as the receipts of the eight years from 1866 to 1873, and we may safely estimate the gross lumber receipts of Tonawanda at not far from 11,000,000,000 feet, and making allowance for errors and omissions in the reported statistics, we may safely say that the combined ports of Buffalo and Tonawanda have been the gateways for the home consumption and trans-shipment to the east of no less a quantity than 25,000,000,000 feet of the lumber product of the great northwest, in addition to vast quantities of cedar posts, telegraph poles and other products of the forest of which we have no means of arriving at the volume. With a rapid increase in volume, constant additions were the natural sequence to the operators at this point, and the present volume of business is transacted by the following named list of parties engaged in various branches of the trade, including wholesalers, retailers and commission dealers and shippers.

At Tonawanda—Eastern Lumber Co., Geo. H. Damon & Co., Cornelius Collins. North Tonawanda—Robinson Bros. Lumber Co., Geo. H. Sawyer Lumber Co., Skillings, Whitney & Barnes Lumber Co., H. M. Tyler & Co., Silverthorn & Co., Donough &

Oliver, Dodge & Bliss Box Co., Oiele & McKean, A. Weston & Son, Willoughby & Hathaway, J. B. Huff, Calkins & Co., Fred Myrick, J. T. Charlton, Wisconsin Lumber Co., John Godkin, Muskoka Lumber Co., Kelsie & Gillespie, Rumbolt & Bellinger, Merriman & Merriman, Smith, Fassett & Co. As forwarders—W. H. Cowperth, P. W. Scribner, and Fassett & Bellinger.

John Sedgwick Noyes.—Few men may be credited with having played a more important part in the development of the vast lumber trade of the northwest, than may be set down to the account of John S. Noyes of Buffalo. Mr. Noyes was born at Manchester, New York, April 20, 1831. He was the son of Milton and Mary Ann (Sedgwick) Noyes, his father being a direct descendant of the Rev. James Noyes, who emigrated from Wiltshire, England, in 1630, and settled at Newburyport, Mass. The descendants of James, prior to the Revolutionary war, were professional men in the main, a large proportion of them being ministers of the gospel. The mother of our subject was a descendant of General Robert Sedgwick, one of Cromwell's generals, and the name of Sedgwick became prominent in the early annals of Connecticut, where it is found among the records of the most prominent legislators and public men.

John S. Noyes attended school in his native town, supplemented by a course of five years of study at the Brockport Collegiate Institute, New York State, when on account of impaired health he gave up his studies and secured a position in Buffalo as a dry goods clerk, which after two years gave way to the commencement of his career as a lumberman, in which he has since continued. His first venture was in the purchase of a lot of shingles at Port Dover, Canada, on which he scored a loss of nine dollars, but undiscouraged he entered upon a second venture, in which his watch formed a portion of the payment upon a small lot of lumber, and scored a success, than which, none of the vast transactions of later years gave him greater satisfaction. Locating upon the Ohio basin in 1852, Mr. Noyes for the first year operated alone, soon after forming a partnership with William Hawkins, one of the best lumber inspectors of the day and who was engaged in a forwarding and commission lumber business, and the firm of Hawkins & Noyes continuing but one year, gave to each partner the neat return of $6,000. At this time Buffalo had wrested from Oswego the large forwarding trade which had for several years centered in that city, or so much of it as originating beyond Lake Ontario, must otherwise necessarily pass through the Welland Canal. Of this trade, a majority came from the Canadian shores of Lake Erie, Dunnville, Cayuga, Caledonia and Brantford on Grand river, Port Dover, Port Rowan and Port Burwell, together with minor points on the lake shore, these being then and for many years the leading lumber producing sections of the west, whose product sought an eastern outlet by canal from Buffalo. About this time Mr. Noyes rented a water mill at Nanticoke, Canada, the output of which he sold to an Eastern firm which failed, involving a loss to Mr. Noyes of about $12,000. In 1855 he took James Roby (an old schoolmate) into his business as a partner, the firm of Noyes & Roby continuing for three years. Up to 1854 Mr. Noyes looked almost exclusively to the Canadian shore for consignments, and with the establishment of the reciprocity treaty of 1855, which continued in operation until 1865, his business continued to increase from this quarter, but in 1855 he became interested in the rapidly developing lumber manufacture of Michigan and purchased a cargo at Saginaw for account of the firm of Sage & Grant of New York city, with whom he soon after became identified in extensive operations, including the purchase of large quantities both of logs and sawed lumber, the logs being cut principally upon the Cass, Flint, Bad and Tittabawassee rivers of Saginaw, whose product in that day was recognized by lumbermen as of a very superior quality, and was much sought after by eastern buyers. During the period between 1855 to 1859 Mr. Noyes made his headquarters at the Bancroft House, East Saginaw, each winter, a hostelry of national renown, and to which lumbermen gravitated most naturally, both then and now. In 1860 with the dissolution of Sage & Grant, the firm of Grant & Noyes was formed, and continued large operations in Michigan, Mr. Noyes meantime, in connection with Mr. E. D. Reed, carrying on an extensive wholesale and retail business at Buffalo, combined with which was a large forwarding business.

In 1857 Mr. Noyes purchased the Roby interest in the business, and the following year in connection with Edward D. Reed of Montpelier, Vt., formed the firm of Noyes & Reed, and this latter connection continued for thirteen years, Mr. Reed handling the Buffalo end of the business during the winter. About this time Noyes & Grant purchased and cut off the timber from 10,000 acres of land on the Tittabawassee river, and later a tract upon the Au Sable river, continuing their operations upon an extensive scale until the failure in 1873 of Mr. Grant's eastern company, through which Mr. Noyes sustained a heavy loss. In 1874 the firm of Noyes & Reed was dissolved by mutual consent, and Mr. Noyes continued the business alone until 1879 when he formed a copartnership with George P. Sawyer which under the designation of Noyes & Sawyer has continued to the present writing, the firm holding an enviable position among the business men of Buffalo and the various sections where their activities have caused them to be known.

The forwarding business conducted by Mr. Noyes and his associates, extended over a period of twenty years from 1852 to 1872. Contemporaneous with him in the lumber business of the city during the earlier years, we may mention Selim Sears, Seth Clark, Jerome Pearce, Blossom & Skinner, Joseph Van Vleck, Oliver Bugbee, and Harvey Mixer, and two or three years later, George M. Cole and Mixer & Smith. In 1853 the firm of Farmer, De Blacquier & Deedes, who had extensive mills on Big Creek, Norfolk county, Canada, established a business at Buffalo, with James N. Scatchard as their agent, who in 1855 began business under the firm name of Scatchard & Belton, and became Mr. Noyes' chief competitors in the forwarding business. About this time also James R. Smith (of the subsequent firm of Smith, Fassett & Co. of Tonawanda), who was in the employ of Harvey Mixer, (1854-56), formed a copartnership with Harrison Mixer (brother of Harvey) under the name of Mixer & Smith, also carrying on a large forwarding business in lumber, all of these houses doing a large business principally in handling Michigan lumber, which now in connection with Canadian and Green Bay shipments had the effect of making Buffalo one of the most prominent lumber points of the northwest. In 1861 Mr. Noyes instituted one of the most important innovations and improvements which the commerce of the country has ever witnessed, and one which revolutionized the carrying trade of the great lakes, confined in its benefits at first to lumber carriage, but ultimately extending to the transportation of all the heavy products of the mines and agricultural interests of the great west, which sought a more economical method of transportation. This was before the shipping of the lakes had been revolutionized, as at a later day, by the construction of the mammoth craft which now crowd the waters of the great lakes with vessels of from 2,000 to 4,000 tons burden, and with the unexampled development of the nation, particularly in the west, there was a dearth of carrying capacity, which was especially felt by the lumbermen, whose demands were made subservient to those of the grain and produce dealers who in turn were much hampered in their efforts to respond to the great and increasing demand for the products of the farms of the west, through the abnormal demands of foreign nations for American grain and provisions.

At this juncture Mr. Noyes purchased the propellers Cataract and M. B. Spaulding, and tried the experiment of moving lumber by steam, its transportation having hitherto been confined wholly to sail vessels. The Spaulding made one or two successful trips to Michigan, and upon a third, took fire at a dock at Forrester on Lake Huron and was destroyed; the Cataract he then sold. During the '40s and '50s there had been built for the passenger and freight traffic between Buffalo and Detroit, a number of large and palatial steamboats, costing from a quarter to half a million dollars each, which by reason of the building of railroads on the south and north shores of Lake Erie, had become unprofitable, and in the latter part of the decade, had been taken out of commission, and lay rotting at the docks. Mr. Noyes conceived the idea of stripping these steamers of their machinery and converting them into barges to be towed by powerful tugs. The manufacture of lumber at Saginaw and other western points had attained a volume which warranted the belief in his mind that the transportation of large quantities in single cargoes would relieve the situation and add to the prosperity of the lumber trade, which he foresaw was likely to be greatly stimulated by the events of the civil war, which had increased the demand for all the products of the west, and the carriage of lumber was likely to be still more hampered by the demand for vessels in other lines of traffic. It was at this juncture that Mr. Noyes purchased for a nominal sum, the hulls of the steamers Empire and Sultana which lay useless and sunken at the foot of Belle Isle in the Detroit river, and after expending no less than $25,000 in raising, overhauling and strengthening them, they in the spring of 1862 were started on a mission which as the sequel proves was indeed to revolutionize the carrying trade of the lakes. Chartering the large and powerful tug Reindeer, which was under the command of Capt. "Sim" Keeler, one of the most judicious and reliable seamen on the lakes, and just the man to be in charge of an enterprise which was widely characterized by vessel men as chimerical and extra hazardous, the barges were towed to Saginaw to be loaded with lumber, if prejudice against the enterprise did not prevent the obtaining of cargoes. Mr. Noyes, however, had provided against this by having cargoes of his own lumber ready for the initial trips, and after loading the Empire she was despatched with the tug to Buffalo, the Sultana remaining to be loaded and await the return of the Reindeer. The barges carried but one crew, and were in charge of Captain Jack Myers, who transferred his command from one to the other, the intention being to have one barge loading while the other was upon her trip and unloading. So doubtful did the safety of the experiment appear, that the insurance companies declined to take risks upon them, until Capt. E. P. Dorr, the intelligent agent for the underwriters at Buffalo, had the wisdom to discern that the risk was really less, controlled as the barges were by a powerful steam tug, than that of a sailing vessel, and he soon succeeded in overcoming the scruples which existed, and with the removal of this difficulty, the carrying of lumber by barges no longer met with opposition from shippers. The Empire carried cargoes of from 850,000 to 900,000 feet, while the Sultana had capacity for but 600,000 feet. The time consumed upon a trip was from seven to nine days, while the sailing craft carrying from 150,000 to 200,000 feet averaged from eighteen to twenty days. The success of the experiment being assured, Capt. ——— Coon, of Detroit, was placed in charge at Saginaw, where he remained until September of that year, when he was succeeded by George W. Hotchkiss, the proprietors of the line attending to the unloading and despatch of the vessels at Buffalo. Finding a considerable loss of the time of the tug in its making the trip alone from Buffalo, in returning for the loaded barge after leaving one to be unloaded, Mr. Noyes, with his brother-in-law, W. S. Abbot, purchased the hull of the once magnificent steamer St. Lawrence at Buffalo, and in the month of August despatched her in charge of Mr. Hotchkiss to take her place in the line, thus providing for one barge to be at each end of the route for loading or unloading while the third was being transferred up or down the lakes. The St. Lawrence loaded a cargo at Saginaw which exceeded in volume anything which had previously been carried by the lake craft, being no less than 1,140,000 feet. She had been hastily and insufficiently prepared for the service, and meeting with a heavy gale on Lake Huron, reached the St. Clair river in a nearly water-logged condition, but her experience sufficed to extinguish the last lingering doubt of the safety of shipments in craft towed by steam tugs, and from that moment prejudice against this method of shipment vanished. In September, 1862, the management of the Saginaw end was placed in the hands of Mr. Hotchkiss, who removed to and took up his residence in Bay City. At this time no improvements had been made in the navigation of the Saginaw river, and vessels drawing more than seven to eight feet of water were compelled to lighter a large proportion of their cargoes, and the barges were no exception, it being no unusual thing to lighter out as much as 600,000 feet of the Empire's load, and proportionately of the Sultana's, while the only two trips made by the St. Lawrence demanded on each occasion the lighterage of 700,000 feet of her cargo, at a cost of one dollar and a half per thousand feet. Finding the lighterage facilities to be lacking, the firm in the spring of 1863 purchased the hull of the Ocean Queen, another of the old-time water palaces, and essayed to use her as a lighter, but her extreme length rendered her unwieldy in the narrow and tortuous waters of the Saginaw, and she was placed in the lake line with the Empire and Sultana, the St. Lawrence having been sold to parties at Erie, Penn., where for many years she did service as a dry dock.

In displacing the Queen City from river duty, appeal was made to still another of the abandoned steamers, and the Illinois, which had been sunken at Detroit, was cut down nearly to her bilge, redecked and supplied with a steam engine and propeller wheel, making a lighter having capacity for carrying 300,000 feet on a light draft of water, and was found to be highly available in connection with the loading of the barges. The Ocean Queen made but one trip to Buffalo, and was on her return when she encountered heavy weather, and being of great length and height out of water, and not having been overhauled and strengthened as had the others, she was lost on Lake Huron. During the fall of 1863 the Sultana was lost on her down trip, and the season closed with the Empire alone surviving, and she continued in commission until the fall of 1870, when she, too, met her destiny on Long Point, Lake Erie. The Empire registered 1140 tons and was built at Cleveland, Ohio, in 1844, the Sultana was of 725 tons and was built at Algonac in 1847. The innovation established through the enterprise and foresight of Mr. Noyes, and which was at first frowned upon by both shippers and insurers, sustained only by the indomitable enterprise of Mr. Noyes, and his success in instilling his own faith into the breast of Captain Dorr, an agent for the underwriters, through whose favor alone the enterprise was carried to success, resulted in a complete revolution of the carrying trade of the lakes, the opposition of vessel owners being overcome to such extent that by 1870 there were one hundred and twenty-eight towing barges on the lakes and rivers (beside those employed exclusively on rivers) with a capacity stated at 37,700 tons registered capacity, employing no less than five hundred men in their regular crews, in addition to fully 2,500 men employed in loading and discharging, the capital invested exceeding $1,000,000. With a steady increase from year to year since that time, it is safe to say that fully eight-tenths of the immense traffic by lake which now carries the products of the forests, mines and agricultural products of the west to an eastern outlet, and brings back the coal and other products and merchandise of the east, is conducted by means of steam barges, carrying large cargoes and having in tow one or more barges which are wholly dependent upon them for means of propulsion. For several years subsequent to the inauguration by Mr. Noyes of this innovation in the carrying trade, old vessels which were unfit for use in the grain carrying trade were almost exclusively employed, thus extending the life and usefulness of a vast number of craft which otherwise must have been wholly condemned, but as these succumbed to the elements they were replaced by others of a larger class, and the lake marine of to-day vies in character and size with that which plies the ocean, there being a constantly increasing number rating from 1,500 to 4,000 tons burden.

Mr. Noyes has not confined his energies to lumbering and shipping operations at Buffalo and the lakes. In 1879, while visiting the Pacific coast, he became impressed with the future value of the great redwood forests of California, believing that with the decadence of the white pine forests of the northwest, redwood would be found adaptable as an equally valuable substitute, and in 1880 and 1883, in company with some of his most practical and enterprising friends, he secured a large tract on the Van Dusen river in Humbolt county, which is estimated to contain 1,500,000,000 feet of this valuable timber. The firm of Noyes & Sawyer, at their yard in Buffalo, carry stocks of this lumber, and when the time arrives for its enlarged use in the markets of the east, its good qualities will have been made manifest to at least some portions of its future market. The Van Dusen tract is located about eighteen miles west from Humbolt Bay, thirty-five miles from the city of Eureka.

Mr. Noyes was married in 1861 to Miss Minerva H. Abbott, one daughter, now the wife of H. W. Sprague, a prominent lawyer of Buffalo, being the issue. Mr. Noyes is a Republican in his political affiliations, is a member of the Masonic order, a member of the society of the Sons of the American Revolution and other civic societies and clubs. Since the first proposition made to him to run for alderman in his ward, he has steadily refused on account of his business life to have anything to do with active politics.

Henry Montgomery, for many years a resident of Buffalo, N. Y., and during the later years of his life prominently connected with the lumber industry, was born at Fort Edward, N. Y., in 1827. He was the son of Ezekiel Montgomery, a millwright, who constructed many of the saw mills of northern New York, which in his day were all sash mills, operated by overshot or flutter wheels, run by water power, and were expected to turn out from three to five thousand feet per day, the working day being as a rule from sunrise to sunset. In 1833 Ezekiel Montgomery removed his family from Fort Edward to Silver Creek, Chautauqua county, N. Y., which was coming into prominence as a lumber section, and here his son Henry learned the trade of a millwright, which he followed until 1858. During the interim the inventive faculties of both father and son were brought into play in the construction of a grain separator, afterwards known as the "Eureka Smut

Machine," which was run by steam or water power, and found ready acceptance in flour and grist mills. In 1868 Mr. Henry Montgomery removed to Buffalo and became a member of the lumber firm of Clarke, Holland & Co., of that city, who were also sash, door and blind manufacturers, having a manufactory which for a long period held the distinction of being the largest east of Chicago, Illinois. The Eastern Sash, Door and Blind Association was organized by him, and he was its president at the time of his decease in 1887. In 1878 Mr. Clarke sold his interest in the business to James H. and Franklin Lee, of Buffalo, and the firm became Lee, Holland & Co., Mr. Montgomery being the Company and active member of the firm. In politics Mr. Montgomery was a Republican, but free from political bigotry, and at one time was elected to the office of alderman upon an independent ticket, and could at all times be relied upon to support and forward any measure which would advance the interests of his city.

Mr. Montgomery was married in 1858 to Miss Helen Lee, of Silver Creek, N. Y., the issue being three sons, Nelson Lee, George Brewster and Henry Ernest. Nelson Lee Montgomery died in 1880 at the early age of twenty years. Fitted by nature and education for a life of usefulness his untimely death was deeply deplored by a large circle of friends. George Brewster Montgomery was born in Silver Creek, N. Y., July 2, 1862. He was educated in the Grammar and High schools of Buffalo, supplemented by a course at the Michigan Military Academy at Orchard Lake. In 1883 he entered the employ of Nelson Holland, a well-known lumberman, where he remained until 1887, when the firm of Holland, Graves & Montgomery was formed, a firm which has since been recognized as one of the largest wholesale lumber houses operating in the northwest, aggregating about 75,000,000 feet of lumber yearly, besides lath and shingles. This vast quantity of lumber is procured at the various manufacturing points of the west, from thirty-five to fifty millions yearly coming from the Green Bay region, taking the entire cut of the H. Witbeck mill at Marinette, besides the product of other mills at Green Bay, Saginaw and Duluth. Their trade in the distribution of this large quantity of lumber is in the east and southwest.

H. P. Smith.—The biography of such a man as H. P. Smith is fraught not only with readable interest, but has a useful moral effect upon the present time and as well to posterity. It teaches youth what industry and moral worth can achieve, and that they can hope for all things if they make honor their guide and are prompted by honorable emulation.

The subject of this sketch was born April 24, 1811, in Warren county, N. Y., and he emigrated to western New York with his father, Isaac Smith, when only eight years old. His first commencement in life was teaching school; afterwards he became a clerk in a mercantile store at Niagara Falls; this he continued for some time, when he moved to Tonawanda, and clerked in the grocery store of Uriah Driggs. In 1833, in company with his brother Daniel, he commenced for himself in the general store and stave business. Though not being entirely satisfied, he moved to Chippewa, Canada, in 1836, and commenced merchandising. Money in those days was a very scarce commodity, so he took in exchange for his wares timber, which in return he brought to Tonawanda to sell and pay for his goods. This he continued till 1840, when he moved to Lockport, N. Y., and commenced the lumber business with his brother Philo; this partnership lasted till 1844, when he gave his entire business interests to his brother and moved to the Township of Walsingham, Canada. With his former good credit in Buffalo, he had no trouble in obtaining a stock of goods, which he took to his newly adopted home in Canada, and commenced exchanging them for saw logs. This proved eminently successful, and he took in a partner and commenced operations on a large scale. They soon became the possessors of a fine lot of pine saw logs, which were stored away in the creek, and their next move was to transport them to market. The fertile brain of H. P. Smith conceived a plan to make a large raft and tow them across the lake. (This was the first experiment ever made in this direction, and his plan of making the first one is the same now in use on all the lakes.) After six years spent this way in Canada, he moved to Tonawanda, continuing as heretofore to raft logs, which he sold to the mills at Tonawanda.

In the winter of 1855-6, he went to Sable river on Lake Huron, and put up two large rafts of black walnut and oak, which he towed to Buffalo. These were the first rafts ever towed on that lake. In 1861 he commenced towing logs on Saginaw Bay, in company with Luther Westover, of Bay City, Mich., and continued this business until his death, which occurred July 14, 1874.

To Mr. Smith more than any other man belongs the honor of inaugurating a business which led to the development of the vast lumber interests of Tonawanda, by supplying them with timber, and which was then a very hazardous and risky business. Besides having the weighty cares of a widespread business, he was vice-president of the Niagara County National Bank of Lockport, and a stockholder from its organization, also a director in the National Exchange Bank of Lockport. In 1860-61 he represented the First District of Niagara County in the State Assembly, and though this position was offered him a second time, he declined, preferring to devote all his valuable time to business, not caring for political honors. He also turned his attention to agricultural pursuits, which proved, as did his business, successful. He was married to Miss Christina Long, daughter of Benjamin Long, of Marietta, Pa., by which marriage he had nine children, six of whom, with his wife, survive him, his business interests still being continued by three of his sons.

The life of H. P. Smith was an eventful one. He always directed his conduct by principles based on the soundest morality. There was not a word of reproach against his character, nothing to sully his fair name, nothing to dull the lustre of his life, still left shining as a bright example to be followed.

Mr. Smith liberally dispensed his charities, and saw and enjoyed the fruit of them while living. His good works live after him; and when the sands of life were all spent and he had been gathered into his

Cut by Henry Taylor & Co. Chic.

J S Noyes

"narrow house," he was mourned as a public benefactor, and his name will not be forgotten.

Henry B. Smith a son of the subject of this sketch is secretary and treasurer of the Michigan Pipe Company of Bay City, Mich., an institution engaged in the manufacture of wooden pipes for water and gas supply and the covering of underground wires, consuming an average of no less than 3,000,000 feet of logs yearly during the past twenty-five or thirty years. This is but one of many enterprises in which a large consumption of pine timber is involved, of which no record is included in the yearly tabulated reports of the saw mills, and in estimates of the production of the forests is included in "miscellaneous." In this manufacture, the rough log is turned in a lathe to remove the bark and sap, and is then bored with a hollow augur to sizes from two to twelve or fourteen inches, the core of the larger logs being bored to make the smaller pipes. The pipes after a period of seasoning, are banded with heavy hoop iron and rolled in a bed of hot bitumen to prevent decay. Many of the smaller water works systems of our cities are wholly equipped with these wooden mains, while the demand for them as a covering conduit for underground telegraph and telephone wires is co-extensive with the rapid extension of these important adjuncts of business development.

OSWEGO.

Oswego, New York, was one of the earliest American ports to receive consignments of lumber from the Canadian forests. It has been shown in earlier pages of this history, that as early as 1783, lumber was shipped to this point from the mills of the Bay of Quinte, which point was for many years a prominent manufacturing section, the country north, being not only prolific in excellent pine forests but the main field or center of the northern lumber business during the first forty years of this century, Oswego being the nearest prominent settlement on the American shore, and on the building of the Erie canal, its northern terminus, was the natural entrepot for Canadian shipments to tide water, and commanded the trade from the mouth of the St. Lawrence to the head of Lake Ontario, becoming of still more importance as railroads extending northward from Toronto to Lake Simcoe, and from Port Hope, Coburg, Belleville and other points to the interior, developed an extensive trade in lumber timber and other forest products from these rich forests.

Of the extent of these shipments no data is obtainable previous to 1860, at which time we find record of receipts amounting to 190,402,220 feet. That it had been an important point, and in fact the principal transfer point for lumber for many years previous, is a well-known fact, the shipments not only from the points of production on Lake Ontario, but as well the principal lumber shipments from Lake Erie and the river St. Clair, finding re-shipment at this point up to about 1853-4, about which time Buffalo took precedence so far as Lake Erie was concerned. Oswego was, however, destined to hold her own and to increase her receipts with the rapid development of lumber manufacture subsequent to 1860, so that the figures which during the years of the war dropped to 80,744,849 feet in 1861, and hung at about 125,000,000 per year up to 1864, advanced to 176,488,696 in 1865, and 200,000,000 in 1866, from which time there was a constant yearly advance to 289,315,329 feet in 1870, and 292,919,282 feet in 1872, the records between 1860 and 1872 showing an aggregate of 2,687,885,584 feet, or a yearly average receipt of 206,000,000 feet. In 1873 the receipts reached the highest figures known to the port either before or later, being 343,584,000, 1874 dropping to 279,567,000, as the panic of 1873 exhibited its effects upon the industries of the nation and each succeeding year emphasized the effect of the business stagnation with a reduced volume of receipts until 1879, when the figures drop to 125,967,000 feet. 1880 showed a recuperation to 210,550,000 and the following year to 232,366,000; 1882 brought up the receipts to 254,183,000, but from this time the retrograde movement was rapid from year to year, until in 1886 but 194,596,000 was received and a constantly downward figure was reached until the receipts of 1895 reached but 92,261,000, 1896 running up to 133,476,000 and 1897 dropping to 106,791,000.

The total volume of receipts from 1873 to 1897 may be stated at 4,613,951,000, and adding those of the period 1860 to 1873, 2,687,885,584, and for the thirty-seven years 1860 to 1897 a gross total is found of 8,301,836,584 feet. While no data is obtainable previous to 1860, personal knowledge of their existing conditions leads to a belief that 3,000,000,000 feet may safely be added for the thirty years from 1830 to 1860, and fully another 2,000,000,000 for shingles, lath, pickets and the receipts from 1800 to 1830, it being remembered that Oswego was the entrepot for a vast Canadian product up to the completion of the Erie canal, and that from about 1824 it was the main channel of lumber transit from the Canadian mills to the east. Oswego may therefore be credited with the receipt of no less than 13,000,000,000 feet of the products of the saw mill.

TOLEDO, OHIO.

Among the distributing points to which has gravitated the immense forest production of Michigan since the earliest development of the lumber business, Toledo, Ohio, has been prominent.

Located near the head of Lake Erie, it has for many years enjoyed those facilities both of canal and rail, which has made it an entrepot for a vast proportion of the lumber and other articles of commerce which find distribution in the interior towns and settlements of Ohio. As to the volume of its lumber trade, the historian is silent, except to say that it reaches fully 200,000,000 feet per year, brought to this point mainly in vessels from Michigan points of production, and it is here distributed to the retail dealers of the interior. So early as 1850 a saw mill was erected at Toledo by the late David Smith, the stock for which was towed in rafts from the pineries of the St. Clair and Saginaw rivers and the Huron shore, combined with the manufacture of local hardwoods, principally for shipbuilding purposes. The first mill was a small affair, consisting of a sash saw operated by a small engine and capable of turning out about 3,000 feet daily of local oak, poplar, etc. With a growing demand, the mill was from time to time enlarged and rebuilt until it was ranked among the best of its day. In its transformation, the mulay was added to by one circular; later the mulay was removed, and a second circular added, and in 1891 the circular gave way to two band saws. The oak of the country about Toledo was well adapted to shipbuilding purposes, while the other log stock being mainly in long logs, the manufacture of special bills of timber comprised the major portion of the local manufacture.

The shipping trade of Toledo in supplying stocks for retail yards in the interior of the state of Ohio gave Toledo a considerable importance as a wholesale market, and in this its prominence as a lumber market principally consisted, and such manufacturing concerns as H. W. Sage & Co., William Peter, Eddy, Avery & Co., N. B. Bradley & Co., Mitchel & Rowland Lumber Co., all Saginaw manufacturers, H. B. Atwater, Barbour & Starr, Clark & Terhune Curtis & Brainard, J. W. Hughes, Kelsey & Foreman, Lawton Bros., McLaren & Sprague, C. H. Schroeder & Co., Whitney & Tracey, H. C. Watson & Co., Nelson, Holland & Co., and Young & Miller, have in past years been prominent. Many of these gentlemen had mills at Saginaw, Bay City and elsewhere, and distributed a goodly portion of their manufacture from this point.

David Smith.—The late David Smith of Toledo, Ohio, was for many years recognized as one of the most prominent and enterprising among the lumber manufacturers and dealers of the northwest. Mr. Smith was a native of Scotland, his parents emigrating to this country in 1830, during the youth of our subject, settling in Canada, whence a few years later they removed to Tecumseh, Michigan. As he reached manhood David embraced the profession of civil engineer and surveyor, and found employ in the construction of the Erie & Kalamazoo railroad. In 1849 the young man located at Toledo as a merchant, but the following year seeing a demand for lumber, erected a small saw mill on the banks of the Maumee river. This mill contained an upright sash saw, and with capacity for the manufacture of about three thousand feet per day, found log stock in the native timber of the neighborhood which consisted principally of oak and poplar. This mill was among the first, if not the first saw mill of this neighborhood. The local demand soon led to the erection of a planing mill, the utility of which became more manifest, when, after a few years, the manufacture of pine was added to that of native timber, the manufacture of the latter being more largely confined to ship plank for which the oak of that section was well adapted, and for which a large demand was found in the shipbuilding industries of Toledo and other lake cities. In 1861 Mr. Smith erected another and larger mill on the river at Cherry street, in which he placed one circular and one mulay saw, having a daily capacity for manufacturing twenty-five to thirty thousand feet per day. In 1873 this mill was burned, and rebuilt with two circulars, which in 1891 were replaced by band saws. While the first mill was built for sawing local stock, Mr. Smith found it necessary within two years after it began operations, to obtain stocks of pine logs from the north, and in 1854 he purchased logs from the Black river at Port Huron, Michigan, towing them through the Detroit river and Lake Erie, and this constituted the reliance for a log stock until 1866, when the source being exhausted, recourse was had to the Au Sable river in Iosco county, Michigan, and in 1872 the Harrisville and the Black river of Thunder Bay, and in more recent years to the forests of Presque Isle county, thus following the rapidly retreating forests to their northern boundary at the straits of Mackinaw. From the building of the first mill in 1851 to the present time, the company has manufactured about 400,000,000 feet, of which ninety per cent was pine and the balance oak and poplar. The present mills have a dock frontage of eight hundred feet on the Maumee river, with commodious booms for the storage of logs, and commodious yards for the piling and sale of stock, the trade including both a wholesale and local business, the piling ground affording facilities for the accommodation of 9,000,000 feet, which, finds market at the extreme west, although of recent years the east has demanded the bulk of the manufacture, special bills having from the first been a leading feature, the mills being equipped for the handling of long timber. Connected with the mills is a well-appointed planing mill, containing the most modern appliances for dressing lumber and preparing it for immediate use.

David Smith was recognized as a man of excellent judgment and unquestioned uprightness of life, retaining the high Christian character for which the Scotch race has for centuries been noted. He was married in 1839 at Adrian, Michigan, to Miss Sarah B. Mandeville, two sons and two daughters being the issue. Mr. Smith died at Toledo in 1876. Under the provisions of his will, the business was continued under the supervision of the sons, W. H. H. and Howard M. for a period of five years, when it was purchased by them and the present house of W. H. H. Smith & Co. was organized and has continued to maintain the high character established by its founder.

William H. H. Smith, eldest son of David Smith, was born at Tecumseh, Michigan, in 1840, and was educated at the Toledo High School, and at the Western Reserve College at Hudson, Ohio, until 1861. From an early day he assisted his father in the business connected with the mill, and became thoroughly familiarized with the details of the business. Upon the breaking out of the rebellion, he enlisted in Battery H. of the First regiment of Ohio Artillery and went to the front in the command of General Banks in the Shenandoah valley, serving for a year as a non-commissioned officer, being commissioned in 1862 as second lieutenant, and mustered out in 1865 with the rank of first lieutenant. On his return from the service of his country he became associated with his father's business, in which he has since continued. His father was an old line Whig, but later adopted the principles of the Republican party, of which W. H. H. Smith is a warm adherent. He was married in 1868 to Miss Julia W. Griswold of Detroit, and has four children, viz., William G., Fred H., Frances G., and David S. He resides on Main street, Toledo, and in addition to his lumber business is connected with other enterprises in the city.

Howard M. Smith, second son of David Smith, was born at Toledo in 1857 and was educated in the schools of that city and at Lake Forest University, Illinois. He was married in 1883 to Miss Ida Howard of Toledo, two children being the issue, viz., Catherine, and Malcom H. He has been connected with the business since 1877 and is the junior partner and financial manager of the present well-known house of W. H. H. Smith & Co.

CLEVELAND, OHIO.

From an early date in the development of the great west, Cleveland, Ohio, has been a more or less prominent market not only for the building up of a great city, but as well as a distributing point for central and southern Ohio, and also for western New York. Its earlier trade was largely in the lumber from the mills on the Canadian side of Lake Erie, the mills of Port Burwell, which with its adjacent country to the north and shore mills east to Long Point, was from 1845 to 1860 one of the leading lumber manufacturing sections of the northwest. Of the extent of the operations of this important city, no reliable statistics are available; here as elsewhere, the lumber trade failing to receive that statistical attention which its volume should have demanded. Many of the leading operators at this point, owned and operated large mills on the St. Clair and Saginaw rivers as well as at other important manufacturing points in Michigan, and during later years at Georgian Bay. Of the leading operators at Cleveland we present the following personal sketches.

Rev. Charles Prescott, now a prominent lumberman of Cleveland, Ohio, and no less prominent in the lumber fraternity of the Saginaw valley, was born in Maine in 1828. His father William Prescott was a lumberman and saw mill owner on the Kennebeck river, combining farming with his lumbering operations, which while on a small scale as compared with such operations of the present day, were sufficient in extent to warrant him in seeking sale for his product in the Boston and other eastern markets. The family is of English extraction on both sides, but numbers several generations from the early settlers of the American colonies. Charles received the advantages of the schools of his native town, until the age of seventeen, at which time he adopted the profession of a teacher, in which he continued to employ his winters for several years, enjoying an excellent reputation as a successful teacher. Meantime, he put forth his best efforts in the endeavor to perfect his own education, with the not unusual result of too close application, and ultimate necessity for seeking a less sedentary occupation, and for a change accepted a clerkship in a general store at Portland. At the age of twenty-two years, he decided upon entering the ranks of the lumbermen, with which his father's operations had made him familiar, and purchasing some hemlock and hardwood lands on the Kennebec, he cleared them with a view to farming as well as lumbering. The ripe "cork" pine with which he had in his earlier boyhood been familiar, was at this time nearly exhausted, and had so early as the time of which we write, become a scarce commodity. His operations on the Kennebec continued for but two years, and in December, 1852, he removed to Pennsylvania, locating in Jefferson county, where he purchased timber lands on Sandy Lick creek, between Reynoldsville and Du Boise, establishing a store at the former place, and lumbering on the Sandy Lick, in connection with the purchase of logs and square timber. He thus operated in this neighborhood for about twenty-five years, making his home at Reynoldsville, or at Prescottville, a village established by himself for the purpose of avoiding the influence of the sale of intoxicants, Reynoldsville being especially obnoxious to him. He was assured that lumbering could not be successfully prosecuted in that country without liquor, but Mr. Prescott convinced them that treating and liquor drinking were not essential to his success. Sandy Creek was at the beginning unfit for logging purposes, but Mr. Prescott removed rocks and other obstructions, and made a stream over which his rafts were safely floated, but before this was fully accomplished, many rafts of lumber and timber were knocked to pieces. The timber of the Sandy Lick was of superior quality, and found ready market in Pittsburg, Cincinnati and Louisville, whither it was transported in rafts made up of cribs containing about 12,000 feet board measure, his trade reaching as high as one hundred rafts per year, and after the first year he extended his operations to a purchase of increased quantities in the Pittsburg market, which he floated to such Ohio river points as presented a favorable demand. This trade was continued by Mr. Prescott as long as he remained in the State, his largest operations being during the period from 1860 to 1865, in two at least of which years he handled probably more square timber than any other man or company operating upon the Ohio river. It was his custom to mark his timber distinctly with a large "P" in red, and it became the best known mark on the Ohio river, and by it he was enabled to identify his own wherever it was found. Upon one occasion a quantity was stolen by a man who hewed off the red mark, substituting a plain scratch letter, but the cheat was easily detected, and Mr. Prescott recovered his property. He was during this time connected with three different saw mills on the rivers, and as he was fond of live stock and farming, his lands were in a goodly measure cleared and placed under cultivation, so that when he left that section, he had done probably more than any other one man in developing the agricultural interests in what has since become a noted farming region. His action in forming a navigation or booming company on the Red Bank and tributary streams, made available a large extent of tributary pine timber, which by means of pocket dams was thus transported over waters hitherto unnavigable, and of this company he was for many years a member of the board of directors.

In 1870 Mr. Prescott purchased a large amount of timber lands in Ogemaw county, Michigan, which, however, he did not undertake to operate until in 1878, when he removed to Bay City and began its development. These lands were located to the extent of 10,000 acres upon the Rifle and Au Gres rivers, to which he later added very largely in the same neighborhoods. For one year he cut and marketed saw logs, which were run to and rafted from the mouth of the streams, but in the following year Messrs. C. & D. Hale and others who had become interested with him, conceived the idea of building a railroad into the tract, for the delivery of the logs at Tawas, and a company known as the Lake Huron & Southwestern Railroad Co. was formed, and constructed twenty-two miles of narrow gauge road into the timber, and this was found to materially lessen the expense of logging, avoiding the delays and losses incident to river driving, while delivering the timber direct into the mill boom. The Messrs. Hale a year later becoming financially embarrassed, the road suffered until the appointment of a receiver led to its sale, when it was purchased by Mr. Prescott, who ran it on his own account for the next two years, and under his careful management, it was highly successful and proved profitable. Soon after this, General R. A. Alger and others of Detroit purchased the road and extended it south to a connection with the Michigan Central at Alger, and north to Alpena, its name being changed to "Detroit, Bay City & Alpena Railroad," which was now changed to a standard gauge, and has become the main avenue of travel between Alpena and other towns on the Huron shore, and the southern part of the State. During the time that the road was in the hands of Mr. Prescott, he purchased the saw mill at Tawas City, known as the "Cameron" mill, and has continued to operate it to the present time under the name of the Saginaw Bay Lumber Co., with connecting yards at Cleveland, Ohio. This mill has capacity for sawing 100,000 feet per day, and is under the management of State Senator George A. Prescott, eldest son of our subject, who resides at Tawas City.

Mr. Prescott is a strict Sabbatarian so far as any unnecessary work is concerned, it being a principle with him to permit no work to be done upon the Sabbath, either on the railroad or in the mill, and he has never had occasion to doubt the wisdom of this policy, and during his connection with the railroad, making it a point to employ only sober men, it is a source of no little gratification to him to feel that no man in his employ has lost his life on the road. The product of the mills at Tawas City is shipped almost exclusively by water to the Cleveland yards and to markets in the east. In his Michigan operations Mr. Prescott has pursued the same policy of converting the forest into farming land which marked his operations in Pennsylvania, and although the opinion had long been prevalent that pine lands were unfit for agricultural purposes, his farm of 1600 acres under a high state of cultivation, in addition to as much more fenced as pasture land, have in their yield of wheat and vegetables, together with the excellent pasture upon which he has demonstrated that sheep can be raised to better advantage than in Ohio, effectually proved that farms can be made in this section which are not excelled by those of any section east of the Mississippi. During 1895 large numbers of cattle and sheep raised upon the farms of Mr. Prescott, were shipped to an eastern market, demonstrating that the pine forests of Michigan are suited not only to the production of agricultural crops, but as well to the raising of live stock. The region in which Mr. Prescott began to lumber, was at that time a wilderness which the most optimistic did not dare to hope would be of any value when the pine was removed; through his enterprise it has developed into one of the richest sections of the State, in its now demonstrated ability to reward the efforts of the farmer and the stock raiser. Mr. Prescott later took up his permanent residence in Cleveland, and his wholesale and retail lumber yards in that city are under the efficient management of his second and third sons, Charles H., Jr. and William H. He still retains a body of lands in Pennsylvania, upon some of which are bituminous coal deposits which are being profitably developed.

Mr. Prescott is a believer in the doctrine that man was created for high and noble purposes, and that the business affairs of life, when properly conducted, are not antagonistic, but rather promotive of his spiritual development, and that therefore diligence in business, should not imply divorce from the service which man owes to his Creator. In 1880 Mr. Prescott was licensed by the Baptist Association as a minister of that denomination, and from that date has devoted much of his time to the work of the ministry, extending his influence and labors in this connection to each community where opportunity presented to call the attention of the people to their spiritual interests; and it may be added in the words of one of old, "the people heard him gladly."

Thus briefly have we endeavored to sketch the career of one who is a fair type of the settlers of an early day, of whom but a few are now living. As our fathers took their guns with them to the house of worship as a protection against the Indians who were known to be hostile, so in not a few instances in the early settlement of the western states, the hardy pioneer combined the farmer, the lumberman, the minister of the gospel, and not seldom added to these the medical care of a large area of sparsely settled country, and the church and the school-house have not lingered long nor far behind the logging camp or the saw mill settlement. To such men as Charles Prescott is the nation indebted for no small degree of the wonderful progress which has turned our forests into farms and our wilderness into populous cities.

Ravaud K. Hawley of Cleveland, Ohio, president of the Cleveland Saw Mill & Lumber Co., is a native of the State of New York, where he was born in the year 1821. His parents were Elias Hawley and Catherine Berry, descendants of old colonial families. His father followed the occupation of a lumberman, and the son received the benefits of such education as was afforded by the academic facilities of the times. After some experience as a clerk in a general store, he went to Bradford county, Pennsylvania, finding employment in the lumber camps and saw mill of his father, and soon took charge of the business of manufacturing lumber, taking it to market by rafting it down the Susquehanna river and disposing of each year's product at Port Deposit, Maryland. In the year 1848 he commenced business in Baltimore, Md., as a wholesale commission dealer, which business was continued for a period of thirty-five years. In the year 1871 he founded the Cleveland Saw Mill & Lumber Co., of which he is now president. In 1879 he associated himself with the firm of Alger, Smith & Co. of Detroit, which was subsequently incorporated, and he became its vice-president. Finding his interests assuming such large proportions, he removed his residence from Baltimore to Cleveland in 1883. In 1885, he in connection with Gov. Alger, made large investments in timber lands in what is now the State of Washington. In 1889 the Adirondack Timber & Mineral Co. was organized and he was duly elected its president, this company having acquired some 400,000 acres of valuable timber lands in the Adirondack region in the State of New York. In the same year the Cleveland Saw Mill & Lumber Co., under his direction, constructed a large saw mill containing four band saws together with eight dry kilns, at Marquette, Mich., which is now operated and known as the Dead River Mills Co., a branch of the Cleveland Saw Mill & Lumber Co. Mr. Hawley is recognized as one of the oldest and best informed members of the lumber fraternity, and is held in the highest respect in mercantile and social circles. He is a director in the Mercantile National Bank of Cleveland, Ohio, and in politics he is a staunch Republican. Few men now living can boast of more intimate knowledge of, or connection with, the lumber interests of the nation. The field of Mr. Hawley's earlier labors was for many years one of the leading points of lumber production, and his earlier experiences on the Susquehanna river in days before the yet more extensive forest resources of Michigan and the northwest were comprehended, or thought available, well fitted him for the important influence he has since exercised in connection with their development. Sixty years ago it was not supposed that the forests of southern New York and northern Pennsylvania could ever fail to supply all of the pine lumber which the nation would require, for a century at least. Mr. Hawley has lived to see that district wholly denuded of its pine, and its few remaining mills dependent upon hemlock and hardwoods for their continued operation, while the supposedly illimitable resources of the forests of Michigan, Wisconsin and Minnesota are so nearly decimated that less than a single decade will see their total extinction. From Baltimore on the Atlantic coast, to the great lakes and the Mississippi river, he has witnessed the fall of the forests, and the conversion of their vast aggregate of white pine timber into the dwellings and business marts of the thousands of villages and cities, and the comfortable farm buildings of a prosperous and happy nation. (Since the above was in type, the historian is pained to learn of the death of Mr. Hawley at Cleveland, June 9, 1898.)

The Cleveland Saw Mill & Lumber Company was established in 1871 at Cleveland, with the special object of manufacturing long timber for special bills, the logs being brought from the lower Michigan peninsula. This business has continued up to the present time, and there is prospect of its lasting for some time to come. The volume of the business has grown from 6,000,000 per year to 50,000,000, and from solely white pine, to norway, yellow pine and hardwoods of varieties, including some of the Pacific coast products. Business was conducted solely in the wholesale line until the past three years, since which time a large retail business has been established. The company is as well equipped for business in all lines as any lumber concern in the world. It has river dock frontage of almost one-half mile, with yards covering forty acres, besides a large saw mill pond. The yard stock of lumber and logs is from 25 to 40 million feet. The lumber sheds, particularly arranged for the retail business, have a capacity of 4 million feet. The planing mill, which is constructed entirely of steel, has a capacity of 125 thousand feet per day, and with the saw mill, which is able to cut special timbers up to 85 feet, and having a large stock of logs behind it, this company is enabled to transact a large and profitable business when other yards are idle, as it is able to fill almost any kind of an order. The saw mill, running the entire year, coupled with the large dry kilns with a capacity of 50,000 feet per day, enable the company to stock up on any grades of lumber at any time and on short notice, so that, whereas the ordinary yards are obliged to stock up with all of their requirements in the fall before the shipping season closes, the Cleveland Saw Mill & Lumber Company is never out of any kind of stock. In 1885 a branch was established at Dead River, Michigan, near Marquette, where a four band saw mill was constructed, having a capacity of 40,000,000 feet per year. The present officers of the company are: R. K. Hawley, president, whose life and interests are elsewhere described, L. Dean Holden, vice-president and treasurer, and William Knight, secretary.

L. Dean Holden was born in Cleveland in 1869 and has had a varied business career, commencing in the hotel business at 18 years of age, being manager of the "Hollenden" hotel of Cleveland at 19, in which position he continued for several years, retiring from that position to assume that of vice-president of the "Hollenden," which position he still holds. After leaving the active management of the "Hollenden," he became vice-president of the Cleveland Plain Dealer Publishing Company, publishers of The Cleveland Plain Dealer, which position he holds at the present time. Later, entering the lumber business at Mr. Hawley's request, he became vice-president of the company, and has continued actively in its management up to the present time.

William Knight, secretary of the company, a native of Maryland, entered Mr. Hawley's employment in his youth and remained with him for a number of years, later leaving to take up the management of a large lumber business in St. Paul, thence going to Washington territory to look after Mr. Hawley's and General Alger's extended interests there, finally returning to Cleveland where he has been for the past few years.

Mills, Carleton & Co.—There is no more important business in a community or one in which its exponents are in greater demand than the lumberman, and it requires men of undoubted intelligence, as well as experience, to make a success of this line of work. The firm of Mills, Carleton & Co., is one of the leading ones of the city of Cleveland, and its members, N. and B. Mills of Marysville, Michigan, and C. H. and E. M. Carleton of Cleveland, Ohio, are shrewd, keen-witted business men and thoroughly versed in all that pertains to their line of work. The present firm was formed in 1894, succeeding the firm of N. Mills & Co., and since its inception many years ago has done business under many changes of name. The first was Jewett & Austin, the next Mills, Jewett & Co.,and in 1879 it became N. Mills & Co.,after which it took its present name. They have offices at 714 Seneca street, Cleveland, and extensive yards at the same place. N. Mills has conducted extensive lumbering operations in Marysville, Mich., and in St. Clair and Ogemaw counties,and their Cleveland yards are stocked from the Michigan mills, their shipments, amounting to from 15,000,000 to 25,000,000 feet per year, being made by lake. N. and B. Mills (see personal sketches) both reside in Marysville, Mich., the former having charge of the management of the mills and the latter of the lumbering operations, and business is conducted under the names of N. and B. Mills, and Mills, Carleton & Co. From their yards in Cleveland the firm handle about 33,000,000 feet of pine a year, make a specialty of bill stuff, and one of the mills is built especially for cutting long timbers. They have about 1,500 feet of dockage at Cleveland and the lumber is carried there on vessels owned by the company. From the yards at Cleveland the goods are distributed throughout Ohio, Pennsylvania, Delaware, New Jersey and about thirty per cent of the stock is milled at the planing mills of the Cleveland Lumber & Manufacturing Co., which is owned by Mills, Carleton & Co. and Pack, Gray & Co. of Cleveland.

C. H. Carleton has been connected with the firm since 1885, first as traveling salesman and since 1886 as a member of the firm and general manager of the business in Cleveland. He was with the firm of B. W. Jenks & Co. of Allegan, Mich., for five years, two years as bookkeeper and three years as manager of the lumber camps and mills, and this experience made him a practical and intelligent lumberman. He was born in St. Clair, Mich., in 1859, and his father, George W. Carleton, was an old and capable lumberman of that region and manager of the Truesdell mills at St. Clair for many years. He came to the state about 1850. C. H. Carleton is interested in a number of lake vessels in the lumber trade, including the H. J. Kendall, the T. R. Scott, the Argonaut and others. He is a live, progressive and pushing young business man, and has already made a name for himself in the lumber history of the northwest.

E. M. Carleton was also born at St. Clair, Mich., and like his brother became connected with the firm of Mills & Carleton in 1886, having previously been with the firm as shipping clerk and traveling salesman for six months. In 1889 he bought out the interest of J. E. Mills, and has since assisted in the management of the business. He is president of the Ellwood Lumber Co. of Ellwood City, Penn., which is incorporated with a capital stock of $10,000 and which is doing a large retail business. He is manager of the H. D. Coffenberry, an ore vessel plying on the lakes. Both the Carleton brothers are the heads of families, and are useful and public-spirited citizens.

SANDUSKY, OHIO

Sandusky, Ohio, has also been for many years a prominent point for the distribution of lumber from the mills of various sections of Michigan, but the historian has been unable to obtain any statistics of detailed character which would be of value as determining the extent of the trade. As the entrepot for lumber destined for consumption in western Ohio and eastern Indiana, it has held an enviable reputation as a wholesale market, in addition to the large local demands of this prosperous city and its contiguous territory. For many years and up to about 1870, it was one of the main outlets for the distribution of the excellent black walnut and ship oak, for which the interior country was noted, but no statistics of the extent of its trade in this connection are available. Among the prominent operators at Sandusky we may mention:

R. B. Hubbard.—Among the older lumbermen who still survive to recall the earlier days of the inception of the vast lumber industry which has made Michigan famous as a lumber producing State, and who have been prominent in the manufacture, is R. B. Hubbard, founder of the house of R. B. Hubbard & Sons, carrying on an extensive lumber business at Sandusky, Ohio. Mr. Hubbard was born in Hartford county, Connecticut, in 1817. He was the son of John Hubbard, a descendant of an old colonial family, and a farmer by occupation. His son was given such education as was afforded by the common schools of his native place, which at that early day had taken an advanced position, Connecticut being among the earliest states to recognize the importance of providing its youth with educational advantages. Supplementing his earlier schooling by a course at an academy, the young man left his home, journeying to Philadelphia, and made his way thence to Pittsburg by way of the Ohio river to Cincinnati, and by stage to Columbus and Sandusky, arriving there in February, 1839, after a journey of several weeks. The town at this time had but a sparse population, with no mills or other manufacturing industries. Mr. Hubbard at first engaged in merchandising, but in 1840, visited Michigan, and becoming impressed with the magnitude and value of its pine forests, the young man purchased a tract of timber land in what is now Sanilac county, and erected a saw mill at Lexington, being the first mill erected on the Huron shore. Its equipment consisted of one gate, or sash, with capacity for cutting 10,000 feet in twenty-four hours. This, with a second mill erected by the firm in 1848, and which originally was similar to the first, was in later years modernized, and first by the introduction of mulays and later by the introduction of circulars, the capacity of each was increased to a cut of 30,000 feet, and they were operated by Mr. Hubbard and his business associates to as late as 1860. About 1848 he was joined by two cousins, and the designation of the firm was changed to R. B. Hubbard & Co. and under this name continued in operation until 1885. This

Louis; Sands

firm continued for many years in the manufacture of lumber on the Huron shore, shipping the product of its mills to Sandusky and other markets by vessel. In the earlier operations in Sanilac county, Mr. Hubbard secured between three and four thousand acres of the very fine "cork" pine for which that section was noted, from one section of which they removed no less than twelve million feet, which gives a fair idea of the quantity and character of the original timber growth of this section of the State, and the location of the earliest lumbering operations for commercial purposes.

About 1858 to 1860 the firm located a tract of about 30,000 acres of pine lands convenient to Huron City on Point au Barques, and erected a circular mill at the mouth of Willow river, which flowed through their tract. This mill had capacity for cutting 50,000 feet per day, as circular mills were then run, although subsequent improvement enabled a greatly increased production. This mill continued in operation, with the addition of improved appliances, until about 1876, a period of about twenty years, during which time its output reached an aggregate in excess of 150,000,000 feet. In 1871 it was destroyed by fire together with the mill store and other buildings, entailing a loss of fully $200,000. As the timber was not yet exhausted, the mill was rebuilt in a thoroughly modern manner at a cost of $100,000, and continued to operate until 1879, when Mr. Hubbard and his cousins dissolved partnership and divided the remaining property and effects of the business. Hubbard & Gilsey built the first dock at Lexington, which was erected on the shores of Lake Huron, demonstrating in this structure, which exceeded a half mile in its length, the feasibility (hitherto disputed) of constructing a substantial pier upon the rough shores of the lake. It was at this dock that the propeller Cataract, mentioned elsewhere in connection with the inception of the project of moving lumber by steam craft, and the inception of the barge industry (see sketch John S. Noyes), was destroyed by fire. The firm also constructed an extensive dock in connection with their milling operations at Huron City. In the course of their business the firm of R. B. Hubbard & Co. became considerably interested in the vessel interests of the lakes, owning several steam and sailing craft, including the propeller Huron City, the schooners Almira, Hubbard, of Madison, and six or eight others, which they employed in lumber transportation. The propeller Huron City was built at Sandusky, the schooner Hubbard at Port Clinton, and the Almira at Fremont. About 1865 the firm purchased a tract of about 30,000 acres of pine timber on the Au Gres and Rifle rivers of Saginaw Bay, which they afterward disposed of to the Keystone Salt & Lumber Co. of Bay City.

Later, Mr. Hubbard associated with him his sons in the carrying on of his extensive lumber business at Sandusky, under the firm name of R. B. Hubbard & Sons, and after spending fully fifty years of an active life in the prosecution of the lumber business is content to let the burden fall upon the shoulders of a younger generation, with a well-grounded faith in their ability to still farther strengthen the structure, and to maintain the honorable record which he by energy and an unswerving integrity has so successfully erected. He does not, however, propose to close his days in idleness, being still as for the past twenty-five years president of the Second National Bank of Sandusky, interested in the Rolling Mill of that city and connected with a wheel and spoke factory of which his son Charles is manager at Hartford City, Indiana.

By his first marriage Mr. Hubbard had three sons and one daughter; for his second wife, Mr. Hubbard married Miss Dora Hoffman, one child being the issue. Of his children, four sons and one daughter are living. In politics Mr. Hubbard was a Democrat until 1861 when he espoused the doctrines of the Republican party, with which he has since been connected. He was elected a member of the School Board of his city and for several years held the honorable position of its president, through repeated re-election.

Becoming connected with the lumber trade of the northwest in the early days of its inception in Michigan, days when the most pessimistic dared not predict that generations to come would witness the extinction of its supposedly inexhaustible forests, Mr. Hubbard has lived to see what is practically its end, a day when the scarcity of timber is so pronounced, that what was once considered valueless, and fit only for the mill furnace or the log heap, constitutes a large proportion, if not the bulk of the timber supply, and when it is less difficult to obtain supplies from the Pacific coast and the south, than in his earlier operations to transport the product of his mills on Lake Huron to his yards at Sandusky. He has witnessed the growth of the nation, from its possession by roving Indians, to its upbuilding with populous cities; the stage coach give way to the steamboat and it in its turn be superseded by the fast traveling railroad train, and to realize that while he has lived in an age of wonderful progress, he will soon leave behind him a generation who shall, during another era of the same number of years which has witnessed such wonderful progress, behold greater things, before which the events of the past century will pale into insignificance. And yet it is a great thing to have lived since 1817.

Bennett Brothers Lumber Company.— Among the leading lumber houses of Sandusky, Ohio, is that of Bennett Brothers Lumber Co., one of the strongest of the many stable houses which do honor to the lumber business of the west, being composed of some of the oldest and most practical operators in Michigan, and of which Charles H. Hackley of Muskegon is president, Thomas Hume also of Muskegon, secretary, Ira B. Bennett of Sandusky, vice-president, and Jay S. Bennett also of Sandusky is treasurer. This company was incorporated in 1895 with a capital of $85,000, and is engaged in the manufacture of, as well as dealing in, lumber, lath and shingles. It is the successor of the firm of Bennett Brothers which was formed in 1885 at Detroit by Ira B. and Jay S. Bennett, which was at that time engaged in a general commission and jobbing business in lumber, which was so conducted by them for two years, after which they removed to Muskegon and were succeeded by the Gilbert & Bennett Co., who continued until in 1889, when the firm again became Bennett Brothers and was known as such until 1895, when the present corporation was formed for operating at Muskegon, where it first occupied a yard at Lakeside, handling at first but about 7,000,000 feet per year, but soon increasing to 25,000,000 per year. In 1890 the firm purchased the Collins & Parker yards at Muskegon Heights, and from that time operated the two yards in unison, carrying a stock of from 15,000,000 to 20,000,000 feet per season, enjoying a large wholesale and car trade. In 1895 when the present company was formed, they removed to Sandusky, where they built a planing mill and obtained a twenty-year lease of their present commodious yards comprising ten acres of ground, with 1,700 feet of dock frontage, where they carry a large stock and are able to dress 100,000 feet per day for their still rapidly increasing car trade, having one of the best yards in the city and enjoying a constantly increasing demand from dealers in Indiana, Ohio, Pennsylvania, New York, and the Eastern States. They receive their stock by lake principally, although in changing conditions of trade in these latter days, no inconsiderable amount reaches them by rail, while shipments are wholly in car lots, and for receiving and shipping, their yards are located most centrally in the business district of Sandusky. It is but comparatively a short time since the shipments by wholesale lumber dealers were exclusively confined to lumber in the rough, but the demands of a later day require all lumber except the very coarsest, to be dressed, and fully fifty per cent of the sales of the Bennett Bros. company both in their local and their shipping trade has been passed through the planing mill. Where but a few years since, the lumber trade of the west, was wholly confined to pine and hardwoods, and hemlock found no favor in the eyes either of dealer or consumer, with the growing scarcity of pine the trade of this company includes white and norway pine and no inconsiderable quantity of hemlock.

Of Messrs. Hackley and Hume, president and secretary of this company, sketches will be found elsewhere in this work. Ira B. Bennett, the vice-president, is a native of Ovid, Michigan, where he was born in 1861, obtaining his education in the excellent schools of that place. Mr. Bennett is accounted a good business man, and has charge of the purchasing department of the business and the outside work of the office. He was married in 1885 to Miss Flora Lame of Dayton, Ohio. He is a Democrat in political faith, and a member of the Masonic fraternity.

Jay S. Bennett was born at Ovid in 1859, and there received his education, which, combined with a knowledge of business gained through his father who was a merchant of that town, fitted him for the two years' employment which he enjoyed in the office of the Holmes Lumber Co. of Detroit, previous to the formation of the firm of Bennett Brothers. He was married in 1889 to Miss Louisa Walter of Allegan, Mich. He is the office man of the company, is a Democrat and a member of the Masonic fraternity.

CHAPTER XXII.—MISCELLANEOUS.

RESUME OF STATISTICS OF MICHIGAN PRODUCTION.—ITS VALUE $2,649,173,000.

WHILE the system of collecting statistics of the pine lumber cut of the northwest has been such, since about 1873, as to give a good general idea of the extent and importance of the lumber trade, the conditions under which the figures were obtained from year to year, necessarily rendered them more or less incomplete, and in summing up the work of the mills for a history of this nature, much is necessarily left to the judgment of the historian in determining the gross production.

In the yearly compilations it was found necessary to include a factor of "miscellaneous mills," which included a vast number which could not be credited to any of the prominent localities, nor would properly be classed upon the lines of railroads. Such mills, located singly or in groups of from one to three, form an important factor in the grand total, while a yet other equally important factor is to be found in the hundreds of small mills scattered throughout the State, from which no reports were obtainable. Equally difficult is it to separate those mills which appearing in an important district in one year's report, may in subsequent reports be classed as miscellaneous, thus giving rise to duplication in the endeavor to arrive at a gross aggregate of production. In the impossibility of aggregating all these elements of uncertainty which have been found to arise, the historian has endeavored to bring to bear an honest and impartial judgment based upon his personal experience since 1851, and upon his knowledge of, and participation in, the compilations of many years, as they have appeared in annual reports of the lumber production.

Taking the annual statistics as compiled by The Northwestern Lumberman from 1873 to 1896 (an authority drawn heavily upon by the historian) and an aggregate of 3,000,000,000 feet is set down under the head of miscellaneous. This miscellaneous record begins with 260,000,000 feet of lumber and 60,000,000 shingles in 1873, the latter item aggregating since that date 4,285,000,000, equal to 750,000,000 feet of lumber, or a grand total of 3,750,000,000 feet.

The period of twenty years previous to 1873 was marked with a continuous expansion of lumber manufacture, the sum total of which may be safely set down at from one quarter to one third the volume produced between 1873 and 1896. Taking the Saginaw valley as an example, and an analysis shows a (speculative) production of 6,000,000,000 feet of timber between 1851 and 1872, inclusive, and of 17,000,000,000 feet reported between 1873 and 1896. Reasoning from this and taking into account the rapid increase of mills, with the extension of railroads throughout the State, and the many millions of feet which were not classified nor included in the annual reports, and adding the estimated lumber production previous to 1873 not otherwise provided for in our estimates, and the historian conceives it within bounds and conservative, to place the factor of miscellaneous in his tables of total production at 12,000,000,000 feet.

In the course of this history but little attention has been paid to what may be termed the bye products of the forest, including lath and pickets, manufactured from slabs and the coarser debris of the saw mill to an extent probably equalling in its stated quantity, fully twenty per cent of the gross total of lumber productions, or in round numbers the equivalent of 30,000,000,000 pieces, equalling 3,000,000,000 feet of logs.

Equally has the production of hardwood lumber at hundreds of mills scattered throughout the State, and supplying a home demand in the main, but contributing no little to the commerce of the State, been slighted, because of the much greater importance of the pine timber industry. Of the extent of this by no means unimportant factor, no statistical data has ever been attempted, and it remains simply a matter of estimate, according to the caprice of him who would venture an opinion. Venturing upon this ground, it is not unlikely that from the earliest history of the State the hardwood resources of its forests have been utilized in commerce and home manufactures to the extent of twenty per cent of the pine supply, or a total volume of from twenty-five to thirty billion feet. It must not be forgotten that twenty-two of the southern counties are exclusively hardwood, and that every little creek had from the earliest settlement of the State, its saw mill, of which there was no less than 435 so early as 1837, at which time there was hardly a dozen mills located in the pine belt, and while a majority of these mills have long since ceased to operate, their place has been supplied to a large extent by steam mills of vastly greater capacity, and the manufacture of hardwood lumber has through the years presented a volume which would surprise those who have minimized its extent.

So, too, the volume of the cedar industry as developed since 1870 will prove a surprise to such as have not been familiar with its development. From such data as is obtainable it may be said that the annual average production of cedar from the Michigan forests includes 6,000,000 cedar railroad ties, 7,000,000 cedar posts for fencing and paving purposes, and 300,000 telegraph and telephone poles, the aggregate of which for twenty-five years, if reduced to feet, comprises fully 12,000,000,000 feet board measure, evidenced by the rows of telegraph and telephone poles which line our streets and roads, the thousands of miles of railroad track throughout the west, and the endless miles of street paving in our cities.

To this also must be added fully 2,000,000,000 feet of hemlock and an equal amount of oak railroad ties, over which the locomotive has carried the commerce of the west during the past quarter of a century, and for which the forests of Michigan are to be credited, and which are scattered from Lake Erie to the Rocky mountains.

A lesser, but not unimportant factor of forest production of which no statistical record is available, is found in the immense production of hoops, headings and barrel staves, of black ash, soft elm, red oak and basswood, and as remarked in an earlier chapter of this history, the State has contributed a no inconsiderable quantity of square timber, both oak and pine, and of oak staves, the total volume of which is merely a matter of surmise. Taking all these factors into consideration, we may safely assert that outside of the pine production the forests of Michigan have yielded to commercial purposes a body of timber equal in volume to one-third the production of pine, or in gross numbers no less than 50,000,000,000 feet if reduced to board measure.

We may now profitably indulge in a recapitulative statement of the timber supply of Michigan, which, while frankly acknowledging to be open to criticism from the very nature of the case, is believed to be as nearly the truth as can be obtained, and the historian submits the following summary of what he esteems a fair conclusion and summing up of the production of the forests of Michigan to the close of 1897 as compiled by districts.

River St. Clair	3,000,000,000
Lake Erie Points	1,000,000,000
Detroit	1,000,000,000
Saginaw Valley	31,000,000,000
Huron Shore	11,225,000,000
Flint & Genessee Co.	2,000,000,000
Grand River	3,000,000,000
Muskegon	30,000,000,000
White Lake	3,000,000,000
Pentwater	500,000,000
Ludington	3,750,000,000
Manistee	9,000,000,000
Grand Traverse	1,500,000,000
Monastique	4,000,000,000
Green Bay (Mich.)	11,500,000,000
Lake Superior (Mich.)	6,000,000,000
Mackinaw Shore	3,000,000,000
C. & W. M. R. R.	2,600,000,000
G. R. & I. R. R.	6,000,000,000
F. & P. M. R. R.	6,000,000,000
Mich. Cent. R. R.	3,250,000,000
Det. & Bay City R. R.	1,000,000,000
D. L. & N. R. R.	3,150,000,000
Miscellaneous Mills	12,000,000,000
Lath & Pickets	3,000,000,000
Total est. pine production in Michigan	161,475,000,000
Hardwood, Cedar, Hemlock, Oak, etc., estimated	50,000,000,000
Total forest production of Michigan	211,475,000,000

We would call the attention of the critic who would question the correctness of our estimate of 50,000,000,000 feet for the hardwood, cedar, oak, etc., to the fact, that walnut, oak, cottonwood, basswood and other varieties of timber were manufactured in large quantities before as well as since the era of pine production; also is it well to remember that vast quantities of lumber of all kinds, but of which no data is procurable, and which does not appear in our compilations, has been consumed in the building up of innumerable towns, villages and cities throughout the State, and when all these factors are considered it is doubtful if the estimate should not be increased rather than reduced both in pine and hardwood.

The value to the state of Michigan of this vast volume of forest product, is also a matter of speculative inquiry. Aside from the value of the standing timber, the item of labor forms the most important, for this includes the cutting, hauling, and manufacture, and as well the shipping of the product. These items have varied from year to year, and any figures could in the nature of the case be but speculative, there being no authentic data upon which to base a precedent. The historian submits with much hesitation the following analysis, believing it to at least approximate the truth.

Stumpage value of 161,475,000,000 feet pine timber @ $3	$484,425,000
Labor acct. cutting and hauling @ $3	484,425,000
River driving and booming @ $1	161,475,000
Sawing and shipping @ $4	645,900,000
Total stumpage and labor, pine	$1,776,225,000
Average sale value at point of manufacture @ $13	2,099,175,000
Stumpage @ $2, labor and shipment 50,000,000,000 feet, oak timber, cedar ties and poles, oak and hemlock ties, staves, hoops, etc., @ $10	500,000,000
Average sale value at point of shipment @ $11	550,000,000

This according to the above computations gives an original stumpage value to the standing timber of $484,425,000, and discloses a labor value to the extent of $1,291,800,000 and in the sale of the product a total value of $2,649,175,000 to the capitalization of the lumber manufacturing industry of the state of Michigan, or otherwise stated, has turned the primarily worthless product of its forests into a tangible wealth of over two and one-half billions of dollars.

To emphasize the vast importance of this immense industry to the commercial interests of our nation, it is but necessary that we compare the above figures, even allowing them to be but approximately correct, with the wealth added to our nation in practically the same period of time by the great gold fields of California, and which in the fifty years 1848 to 1898 are credited with a production of $1,330,000,000 or but one-half the volume of wealth added to the nation by the rich forests of the state of Michigan.

The important question which naturally arises at this point is "How much is left?" a question difficult to answer as any estimate can be but speculative.

LUMAN JENISON.

LUCIUS JENISON.

There are but a few large bodies of pine left in the State, but an infinite number of small clumps of timber upon farms and homesteads scattered throughout the entire state. A careful endeavor upon the part of the historian through the medium of correspondence with lumbermen in all sections, combined with personal interviews with many more, had led him to place the volume of pine remaining at not to exceed 3,000,000,000 feet in the lower peninsula, and 4,000,000,000 feet in the upper peninsula. Subsequent to these endeavors and estimates, however, he was favored with the 14th annual report of the Labor Commission of the State of Michigan, which embraces a census of the timber statistics of each township throughout the State, as the supply was estimated and returned by the supervisors of townships during 1896, and from which he collates the following figures of the acreage of the then standing timber of the State, appending his own estimates as to probable yield in each case, viz.:

Pine, 775,208 acres at 5,000 feet per acre	3,876,040,000
Hardwood, 6,166,977 acres at 3,000 feet per acre	18,500,931,000
Hemlock, 1,468,166 acres at 4,000 feet per acre	5,872,664,000

It will be seen that the official figures (taken at the usual average of production per acre), account for less by nearly one half the quantity of pine throughout the entire State than the historian's estimate, which he believes to more nearly approximate the truth. Be this as it may, even the larger figures of the historian but serve to emphasize the statement that the pine supply of Michigan is practically exhausted.

While it is no doubt a fact that many of the pine lands of northern Michigan are capable of being developed with excellent farms, and that much has already been done in this direction and much more will be done in the future, the time has not yet come when such lands can be considered as presenting inducements in competition with the richer farming lands of the hardwood sections. It has from the first extensive development of the lumber trade, been the custom to allow the stripped lands to revert to the State for non-payment of taxes, and in the winter of 1897, State Tax Statistician Col. Vic. De Land recommended to the Legislature that no less than six counties containing 200 townships, should be consolidated with other counties for the reason that with the removal of their pine resources, their taxable property, i. e., their pine timber, together with its owners, have so far disappeared that there is not enough taxable property that can be realized upon by the assessor, to maintain the expense of operating their county governments. Nothing could more forcibly demonstrate the condition to which a majority of the pine producing sections of Michigan, through the operations of the lumbermen, have been brought in practically the short period of forty years. Thriving villages which had been the pride of a prosperous State have been practically abandoned, many if not a majority of them never to be rehabilitated. It is a question for the future to determine, whether the vast wealth which has accrued to individuals and to the State from its at one time rich forests, can ever be duplicated through any measure of agricultural or mechanical development, or whether through absorption by the State, it may not be necessary for the State to set apart vast areas as a public reserve, in an endeavor to rehabilitate the forests, for the benefit of succeeding generations.

It must not, however, be forgotten that a source of vast wealth still remains in the forests of the State, for while the pine timber is extinct in many portions, while in others it is rapidly approaching the period of extinction, there are still vast forests of hemlock and hardwood, which will attract the attention of the lumbermen for many years to come.

The overwhelming importance of the pine industry, and the limited uses for which oak, beech, birch, maple and hemlock were adapted, naturally led to the view that only pine timber was worthy of the lumberman's notice, and as a result the other valuable woods of the forest were entirely neglected, and the pine being cut off, the lands were abandoned to the State, through the non-payment of taxes, notwithstanding the fact that perhaps in a majority of cases, the remaining timber would in later days prove of equal if not greater value than was realized from the pine, as has since developed.

A brief resume of changing conditions and the evolution of the business, will not prove uninteresting nor uninstructive; the earlier settlement of the State was confined to the southern portion, which was exclusively a hardwood section, including whitewood and basswood in that designation.

The earlier settlers had no thought of utilizing the timber for commercial purposes; if they could obtain a flat board for the doors, floors or walls of their but temporary log dwelling or shanty, it mattered little whether it was of oak, black walnut, maple, cherry, whitewood or basswood, the two latter having the preference, because of greater ease of manipulation, and when the personal wants of the settler in procuring a shelter for himself and his cattle, or perchance in covering the log barn in which his scanty crop was to be secured, were satisfied, the balance of the timber on his claim was considered an incumbrance, to be utilized only as firewood to keep him warm, or in the manufacture of potash from the ashes of his log heap, which could be relied upon to find ready sale, and with the furs of wild animals, supply him with the means of providing those necessaries of life which he could not produce from his land. With the advent of saw mills into the regions where pine timber could be found, the pressing wants of the settler did not lead to a careful scrutiny as to the quality of the timber, while yet the mill man recognized the utility of cutting only such trees as would yield the better class of lumber to a goodly extent, knowing that even the best logs would yield a large proportion of the coarser product. When the business assumed commercial importance, and the local demand became of secondary importance, still greater care was exercised in the selection of timber, as only that which was comparatively free from defects, would pay for transportation to distant markets. For many years it was customary for the woods foreman to go through the timber and mark with his axe such trees as he thought advisable to cut, selecting only such as were sound and would yield a large proportion of the better grades. Through the prevalence of this custom, which in many sections continued to as late as 1870, many forests when abandoned contained larger amounts of good sound timber than had been taken from them, and with the lapse of years passed into the possession of men who, going through them under the same system of selecting only the choicest timber, often found a greater profit than was realized from the first cutting, and with an increasing demand and market for coarser lumber, it has been no unusual experience that the third and even the fourth cutting were found highly profitable. Under such a system, and with little demand for hardwoods, and none for hemlock, which was a pariah of the forest, it was inevitable that no value should attach to anything but pine.

Throughout the northern portions of the State, vast swamps of white and yellow cedar existed to which no value attached, until with the advent of the telegraph and later of the telephone, their size and durability marked their desirability in the construction of such lines throughout the country, and soon after, the value of the timber (which had previously been utilized only in a limited degree for fence posts) was recognized in the vast demand which had arisen for railroad ties, and about the same time the larger timber was found to be highly adaptable for the manufacture of sawed shingles. So late, however, as 1886, contractors for the erection of the government life-saving station at Tawas, in Saginaw Bay, finding cedar shingles in the specifications of their contract, were unable to find them at the shingle mills of the Lake Huron shore, although they had formed an important factor of manufacture on the west side of the State and in the Chicago market for some years preceding. From about that date, however, the cedar trade in posts, telegraph poles, railroad ties and shingles formed an important factor in the forestry industry of the State. Unfortunately very few reliable statistics were ever compiled to illustrate the value of this branch of forestry, the only ones available being those of the few years from 1881 to 1887, showing the extent of the post, pole and tie trade at Chicago, as compiled by the historian as secretary of the Lumberman's Exchange of that city during those years, which show the following receipts:

	Posts.	Telegraph Poles.	R. R. Ties.
1881.............	2.669.453	80.572	3.946.750
1882.............	2.462.866	250.867	3.434.711
1883.............	2.666.567	174.693	1.695.795
1884.............	3.087.376	116.024	947.938
1885.............	3,187.501	68.181	1.690.861

	Tan Bark cords.	Slabs cords.	Wood cords.
1881.............	29.076	19.534	31.480
1882.............	20.000	24.255	52.043
1883.............	26.065	26.023	22.587
1884.............	20.385	43.532	64.825
1885.............	21.006	......	62.139

While no later authentic statistics upon this point are available, it may be assumed that they give a reasonably correct index of the extent of the trade of Chicago in what are termed the coarser products of the forest, and while Chicago is no doubt the recipient of the larger quantities, it must not be forgotten that Michigan City, Milwaukee and Racine on Lake Michigan, Detroit, Toledo, Sandusky, Cleveland and Buffalo on Lake Erie are also railroad centers and distributing points claiming a proportion of the cedar trade, as well as that of lumber. It would be unjust to claim that all the railroad ties enumerated in the table were of cedar, as hemlock and oak ties are included, to perhaps one-third of the number stated.

The conditions under which lumbering operations have of late years been carried on, differ greatly from those of the earlier period. No lumberman would today think of leaving a tree of any kind of timber whether of pine, hemlock, cedar or hardwood upon the lands over which he is lumbering, provided a log can be obtained which will cut a scantling of 2x4 inches. In place of a careful selection of the best timber, everything is taken, down to ring rotten and wormy logs, which in past years were esteemed of no possible value. Nothing could more forcibly illustrate the changed conditions of the forests of the northwest.

Hemlock, of which large quantities are found throughout the northwest, has, as has been remarked, been looked upon in the past as a pariah of the forest, and as a timber which would never be utilized in the commerce of the west. For many years this timber has formed an important factor in the lumbering operations of the eastern country, and has since the decadence of the pine supply formed the principal stock of the mills of New York and Pennsylvania, but found no favor with western manufacturers, dealers or consumers. About 1883, however, small quantities were offered in the Chicago market, finding few dealers who were willing to handle it, even at a price corresponding to the lowest grades of pine. Gradually, however, it has grown in favor, and is now recognized throughout the lumber districts of the northwest as one of the leading and staple articles of the trade, being utilized in the manufacture of joist, scantling and plank, in the uses of which it is of unsurpassed value, while for one inch boards its use and value is more restricted, not being an available wood for finishing and general uses. The prejudice against hemlock arises mainly from its possession of a horny nature making it more difficult to handle on account of the sharp slivers which characterize it, in contrast with the softer nature of pine.

In the lumbering of hemlock, many operators have a keen eye to the value of its bark for the use of tanners, and where this can be utilized the profits of manufacture are greatly enhanced.

While in the greater importance of pine, the excellent hardwoods of the northern forests were neglected, the tendency in later years to utilize oak and maple in the finish of dwellings and stores, and the establishing of furniture factories at many points, has led to a perception of the value of all varieties of timber growing in the northern forests, and the trade in hardwood lumber has assumed so great importance that its volume places it a good second in the race for supremacy, and it is destined no doubt in years not so far distant, to take its place as the leading element in what is spoken of as "the lumber trade." Until of recent years the use of that term directed the mind instinctively to the thought only of pine lumber, its monopoly overshadowing the importance of its neglected coadjutor. The hardwood trade of Chicago, which is one of, if not the most important center of the hardwood trade of the country, has for many years past included a volume equal to 600,000,000 feet per annum, with a rapidly increasing volume from year to year, and the inventory will include every variety of forest growth which attains a size suitable for sawing purposes.

CHAPTER XXIII.—WISCONSIN.

SECTION TWO

EARLY SETTLEMENT.—PIONEER MILLS.—FOND DU LAC COUNTY.—CALUMET COUNTY.—PERSONAL SKETCHES.

WISCONSIN as a lumber producing state, may be divided for historical purposes into three grand divisions, viz., Green Bay shore, Wisconsin River, Chippewa Valley, and Black River districts, the first comprising all that territory which borders on Lake Michigan, or found outlet in that direction for its logs and lumber previous to the advent of railroads, which in the main destroyed all geographical divisions so far as the manufacture and shipment of lumber is concerned.

The second division embraces a section permeated by the Wisconsin river and its branches, and which before the days of railroads, sent its logs and lumber in rafts to a market upon the banks of the Mississippi.

The third division includes the Chippewa and Black rivers, which with their branches extend from the Mississippi through all the central western counties of the State, reaching almost to Lake Superior on the north, and bearing upon their waters the log supply requisite for stocking the mills at their respective mouths. With the construction of railroads, which now permeate all portions of the State, river rafting became practically obsolete, and saw mills were erected at points hitherto inaccessible, while the rivers were abandoned as means for the transportation of the manufactured product, the railroads presenting a far more expeditious and advantageous means of distributing the product, the marketing of which was no longer confined to wholesale centers, but could be carried to the yards of the retail dealers in all portions of the land. In the earlier years previous to 1880, but little attempt was made either to distribute lumber to other than the large wholesale markets on the line of the great lakes, or to the Mississippi river, or to dress the mill product ready for the consumers' use, the lumber being shipped in the rough, to receive its finer manipulation at wholesale centers, or at the point of consumption.

Lumber shipped from the Wisconsin, Chippewa and Black rivers, necessarily reached its destined market not only water-soaked, but covered with mud, and the labor, expense and delay of running, pulling, piling and drying, militated greatly against the profit of the manufacturer. With the advent of the railroad all this was changed, the lumber was now piled at the mill to season; nearly every saw mill added an extensive planing mill, together with dry kilns for the more expeditious seasoning of the product, and each of the hundreds of saw mills which soon lined the tracks of the several railroads, became a wholesale market, from which dressed lumber and mouldings were shipped to any portion of the country in which customers were to be found, a majority of the mills sending travelling salesmen among the retail yards, seeking a sale of such character of product as might be wanted, in such shape and forwardness of preparation for use as might be required.

This again revolutionized the carpentry and building industry of the land, for while the introduction of machinery for planing lumber dated from about 1840, and factories for the manufacture of doors, sash and blinds soon superseded work by hand, it was not for many years, or until about 1870 to 1880, that factories were established in any great number for the preparation of interior finish, and those so established being confined to large cities, the changed conditions of distribution led to establishing at many points, of factories from which could be ordered every possible requisite in the erection of a building, ready for being nailed in place, and not a few of the saw mills added such a factory to their plant, and with improved conditions of transportation, were enabled to ship a house bill complete, from the rough sills and frame-work to the finished doors, casings, flooring and mouldings, and the elegant hardwood mantel or elaborately finished library. With the more extended use of hardwood lumber in house finish, these factories have multiplied in number, and the carpenter and builder finds but little use for the multifarious tools which were the reliance of his predecessors of a generation ago.

CALUMET COUNTY.

Up to 1840, Calumet county, of which Lake Winnebago forms the western boundary, had a population comprising two hundred and thirty Stockbridge and three hundred Brotherton Indians (who had emigrated from New York), and only about three whites, of whom one was a tavern-keeper named Westfall, who settled in the northern end of the county; the Rev. Cutting Marsh, who was a missionary among the Stockbridge tribe; and Moody Mann, a millwright, who later became an "Hon." through election to the position of county judge of Calumet county, and who died in 1854. Mr. Mann superintended the erection (in 1836-7) of the first mill erected in the county, being a combined saw and grist mill for the use of the Brotherton Indians, but about the same date Daniel Whitney erected a similar mill for the Stockbridge Indians, upon their allotment of land. For several years, the settlers about Oshkosh and the west side of Lake Winnebago obtained their lumber and gristing from these mills. About 1848, other mills were erected in the county, so that by 1854-5 there were probably eight or ten mills in Calumet county. In 1837, John Gale of Milwaukee built a mill at Waukesha in the county of that name.

Col. Ebenezer Childs (later of La Crosse) was born in the town of Barre, Massachusetts, in 1797. Left an orphan at the age of ten years, he at eighteen years of age ran away from his native state to escape payment of a tithing tax, the alternative of which was imprisonment in the county jail. The tax was but $1.75, but he could not command even this small sum, and concluded to find some locality where tithing-men were unknown. Chased to the state line by the officers, he worked his way west, and in 1819 reached Cleveland, Ohio, but the climate not suiting him, he decided to push on further west and in 1820 spent several months at Mackinaw, whence he made his way to Green Bay, and in 1820-21 built a store for Daniel Whitney, three miles above Fort Howard, the lumber for which was whipsawed. In 1827, he, in connection with Judge Arndt, obtained permission from the Secretary of War to build a saw mill on the Indian lands, provided the consent of the principal Menominee chiefs was first obtained, which was accomplished under an agreement to give them three barrels of flour per annum for the privilege. Under this agreement, a mill was commenced by contractors in Mr. Child's interest, at a point about twenty-six miles from Fort Howard, on the west side of Green Bay. Upon the completion of the mill, Mr. Childs visited it only to find it barricaded against the Indians, who had threatened the lives of the builders, and who upon the arrival of Mr. Childs, demanded food, firewater and goods, claiming that logs were being cut upon their lands, and that the river was obstructed against the passage of their canoes, and that they must have pay for it. They refused to recognize the right of the "Great Father" or of their own chiefs to give away their lands or timber, and becoming too bold in their demands, Mr. Childs threw his pipe in their faces, and with a poker drove them out of the house. They retreated a short distance and held a consultation, soon returning to compliment Mr. Childs upon being a brave man with whom they desired to make friends; he then gave them something to eat and drink, and they went away with friendly words, never giving him any more trouble.

In the winter of 1827-8, Mr. Whitney obtained permission from the Winnebagos to make shingles on their lands upon the Upper Wisconsin river, and for this purpose employed twenty-two Stockbridge Indians, with a white man as superintendent, and engaged Mr. Childs to pilot the party to the forest and to supply them with provisions. The party camped at the mouth of Yellow river at its junction with the Wisconsin in Juneau county, where they sawed out about 200,000 shingles, when they were interfered with by Major Twiggs of the United States army, who sent a file of soldiers to arrest all who were engaged in shingle making. As it proved, the act was unwarranted, but it resulted in the burning of nearly the entire stock of shingles.

William Paine was the first white settler in Sheboygan county; he went from the Chicago settlement in the autumn of 1834, with the purpose of building a saw mill on the Sheboygan river, selecting a site about three miles from the mouth of the river. A dam was erected during the following winter, and the mill was completed and ready for operation in the spring of 1835, in September of which year it was sold to William Farnsworth, who had for several years previous been a fur trader in this region. Farnsworth placed the property in charge of Jonathan Follett, who removed there with his family for that purpose, being the first white family to settle in the county. In November of that year, a land office was established at Green Bay, and the lands of the district being now in market, Farnsworth obtained government title to the mill site, which had previously been held under squatter right. Among the early lumbermen of Sheboygan county was Ilvah Rublee, who came west in 1839, and engaged in lumbering at or near this point.

Judge John P. Arndt, heretofore mentioned in connection with Capt. Ebenezer Childs, is claimed in Vol. 3 Wisconsin Historical Reports, to have built the first saw mill on Indian lands (with consent of the war department). This no doubt is the same mill credited to Capt. Childs. Judge Arndt is credited with having started a brick-yard in 1827, the first in the State, and to have built the first decked scow in what is now Wisconsin. The Judge went to Green Bay in 1824, and became one of the most important men of that era and locality. It was his claim that he in 1834 shipped the first cargo of lumber that went from Green Bay to Chicago, it being shipped from "Devil river" at the mouth of "Hell creek." (There is probably a confusion of dates in this claim, as the first pine lumber to reach Chicago, so far as can be ascertained, was taken there in April 1835 by Nathaniel J. Brown, who manufactured it at Buck creek near Grand Rapids, Michigan. See Hotchkiss' Lumber History of Chicago.) In 1836, Judge Arndt built the first vessel (the schooner Wisconsin, 140 tons burthen), which was launched in the State after which it was named.

Going back to an earlier date, we find the statement in Vol. 3., page 253, of the Wisconsin Pioneer Reports, that a saw mill, to which afterwards a run of stones was attached for gristing purposes, was built by Jacob Franks about 1809, on Devil river, two or three miles east of Depere, a man named Bradley being the millwright, and that after the Green Bay country was taken possession of by the Americans in 1816, occasion arising for the use of a large quantity of lumber in the erection of garrison buildings, and other purposes about the fort, a saw mill, the erection of which was superintended by a Capt. Curtis, was built on Devil river at the Little Kau-Kauna. In Vol. 7, page 229, Pioneer Records, we find it stated that "Jacob Franks came from Canada soon after the Revolution, and in 1805 erected a saw mill on Devil river, about four miles from Fox river, which afterwards passed into the hands of John Law." There is no doubt a confusion of dates in these statements. "In the spring of 1837, Hon. Mason C. Darling, who came west from Amherst, Mass., became one of the original owners of the celebrated water power and town site of Sheboygan Falls, and completed a saw, grist and shingle mill, and engaged in lumbering." (This statement we accept with many grains of allowance, as the shingles of that period and for nearly a quarter century later, were all hand made, "rived" and "breasted," and while "cut shingles" were known, it is hardly probable that in the days when steam saw mills were scarcely known, that facilities for steaming blocks existed in a region where the mills were all run by water power.)

In a letter (in the same volume) from Mrs. H. Peck, the first woman settler at Madison, Wisconsin, Whitney's mill on the Wisconsin river is named as the only mill in the territory in July, 1837, she having obtained lumber from it from a raft at Helena, for which she paid $69 per thousand feet. Her assertion that this was the only mill in the territory was no doubt made from her own limited knowledge of the facts, as there were several mills in operation at that date at several different points.

In Vol. 6, page 429, Historical Reports, we find the statement of Henry F. Janes (after whom Janesville is named) that in December, 1835, "There was but one house between Milwaukee and Green Bay, and that was at Farnsworth's mill on the Sheboygan river." The demand for lumber had not yet developed, and of the earlier mills of which mention is elsewhere made as of and antedating this period, it may reasonably be supposed that their operations had been suspended, or carried on only to the extent of supplying the immediate needs of the few local settlers who straggled into the territory. Mrs. Peck could hardly have been aware in making her assertion, that in 1836 a saw mill was built at Geneva, Walworth county, by R. A. Warren, which was in operation at the date named in her letter. As this county does not figure in lumber production as generally understood, we may here add, that in 1849-50 James Dickinson built a saw mill at Bloomfield, near Geneva lake, and that by this time saw mills had been been multiplied in numbers at many points in the State.

In the summer of 1837, Mr. A. Wheeler, a millwright, commenced the erection of a steam saw mill on the banks of Lake Mendota, a little west of what is now Butler street in Madison, but as the engine and boiler had to be brought from Detroit to Milwaukee, and thence transported over roads which were scarcely more than a trail, it was not until near the close of the year that it got into operation. A large proportion of the timber used in the construction of the capitol building was sawed at this mill, whose stock was principally of oak and basswood, secured promiscuously from adjoining forests, with little regard to ownership, and with indifference upon the part of the government as to its conservation. It is safe to assert that Mrs. Peck did not have occasion to pay as high as $69 for lumber after this time.

A Swiss colony settled at New Glarus in Green county in 1851, and built a saw mill, but this section, while rich in the various kinds of hardwood, has never cut any figure in the statistics of lumber production, although small mills in various portions of the county have supplied local enterprise with a large quantity of the various woods entering into the manufacture of agricultural implements, and this holds true of those many more southerly sections of the State below the pine belt. The first aggression upon the Upper Wisconsin region was made by searchers after pine timber, occasioned by the increasing settlement of northern Illinois and southern Wisconsin, and in the earlier manufacture at mills convenient to the more southerly forests; the price of lumber ranged from $60 to $70 per thousand feet, at the points on the lower river to which it was rafted.

The pine regions of the state of Wisconsin lie principally north of the east and west line of town 20 of the government survey, and embrace fully three-fourths of the territory thus generalized, while in a minor degree considerable bodies of pine were found as far as, or even south of, the line of township 11 north.

At the town of Brillion in Calumet county, Beach & Bishop built a saw mill in 1872. George M. Beach settled at this place in 1855, building a saw mill in 1872, in connection with (W. R.) Bishop, Blanchard & Co. This mill burned in 1874, but was immediately rebuilt, and was operated for many years, being enlarged from time to time, the capacity being increased from about 5,000 feet to 30,000 feet daily. N. A. Harris in 1873 built a small mill at Forest Junction in this country.

The records of 1874 name the mills of O. D. Bishop at Hilbert, with 1,300,000 feet capacity; Bishop Bros. at Sherwood, whose cut in 1875 is reported at 325,000 feet; Beach & Bishop at Brillion, with a cut of 1,700,000 feet; Harris & Co. at Forest Junction, 500,000 feet; James A. Graves, Gravesville, 400,000 feet; Seth Sumner, Brillion, 150,000 feet; D. L. Libby & Co., Chilton, 300,000 feet. The production and shipment of 6,000,000 pieces of staves and heading is also noted in this year. In subsequent years, the production in this region is classed in the statistics among the miscellaneous mills, and details are wholly lacking. It may be said, however, that a limited production continued for many years on the line of the Chicago, Milwaukee & St. Paul railroad in its passage through Calumet county, while the eastern portion of the county was not very attractive to lumbermen seeking larger opportunities.

Capt. Joseph Keyes of Pultney, Vermont, was a millwright by trade, and in 1836 emigrated to Wisconsin, and was the first settler at Lake Mills, Jefferson county, where he in 1837 built a saw mill in that hardwood timber region. In this year he was joined by his family, and they continued to reside at that point until 1850, when he removed to Menasha, at the head of Lake Winnebago, where he erected one of the first saw mills to be operated at that point. In a sketch of his life written by his son Elisha W. Keyes, it is said, speaking of the newness of the country at that day: "All the improvements we found at Johnson's Rapids (now Watertown, on the border between Jefferson and Dodge counties) as we passed through, were the foundations for a saw mill and one log house. These foundations were being put in by Luther Cole, who was then working on a dam and saw mill for Charles F. H. Goodhue & Son, and the log house was built by Capt. James Rogan, who was a partner in the mill company, and whose log shanty was for a long time the leading tavern of Johnson's Rapids." This serves to show most emphatically the almost wholly undeveloped character of the entire region to the south, at the time when

Philetus Sawyer

the hardy pioneers began the settlement of this now most populous and thriving region.

FOND DU LAC COUNTY.

The earliest lumber manufacture in Fond du Lac county was by whip saws in getting out timber and lumber for the construction of "Durham" boats, or substantial scows, which were a requisite in the earlier navigation of Lake Winnebago, and which, while usually "poled" when the water was not too deep, were also provided with a square sail upon a short mast, for use when the wind permitted. The first saw mill was built at Fond du Lac in 1844, Mason C. Darling giving a contract for a deed to a parcel of land in the east bend of the river, to John J. Driggs and Warren Morley, "provided they should erect a saw mill" and have it running by a certain time, which condition was not fulfilled, but in 1846, in consideration of the sum of $165, he gave the parties a warranty deed. Driggs soon after disposed of the property to Truman Wheeler, who in 1847 was killed by the falling of a tree while engaged in getting out timber for a grist mill. After his death the mill lay idle until 1849, when it was repaired, and in September of that year was purchased by Herman Bissel, whose son L. C. Bissel, for many years superintendent of the Fond du Lac Boom Co., ran it, and by working early and late, or "sun to sun," cut as high as 2,500 feet per day, which was considered a great feat in that day, and in fact was a feat to be proud of, inasmuch as he rolled on his logs, sawed the lumber, and carried out the lumber and slabs without aid, except as his wife would occasionally aid him in rolling on an extra large or flat log, of which it is asserted in Andreas' History of Fond du Lac, that a record kept by Mr. Bissel of 720 logs showed them to average 557 feet each. A general average of logs throughout the State in 1895-6 would probably not exceed 90 to 100 feet each. The old mill, of which we find a description in Andreas' history, was a curiosity, yet perchance no more so than the majority of the mills of the day. The dam supplied but a seven-foot head of water to a modern wheel, encased after the manner of the metal turbine of a later day, its power being ample for the ponderous gate whose solid frame-work shook the earth with every vibration of the saw. The mill was 24x36 feet, the carriage extending out of the end of the mill and over the pond; the log was fed up by the "finger feed wheel," universally in use at the time, while with rack and pinion, the carriage slid upon well greased maple ribbons, which formed the only track known to the day and age. The mill went out in the great freshet of 1855, and was not rebuilt.

In 1846, a steam saw mill, by many claimed to have been the first to be erected in northern Wisconsin, was built by Davis & Ruggles on the east bank of the river; the engine, boiler and machinery were purchased in the east, and the mill started in the spring of 1847, sawing on logs cut on Wolf river, and rafted through the lake to Fond du Lac. Like the water mill, this was a gate mill when first erected, with capacity for cutting from three to four thousand feet daily; not long after it started, the ponderous gate gave way to the mulay, which was looked upon as one of the greatest possible improvements in saw mill machinery, dispensing as it did with the heavy gate, and adding thereby to the capacity of the saw, through a lighter load upon the power; with this improvement the mill cut 8,000 feet in twenty-four hours. This mill was finally burned.

G. W. Sexsmith built in 1854, by remodeling the building used in 1851-2 by A. G. Ruggles as a planing mill, a venture which proved unremunerative, principally because no one could be found who could properly grind and adjust the knives. Mr. Sexsmith turned it into a saw mill, and with remodeling and overhauling to modernize, made a mill which in 1875 cut 4,000,000 feet of lumber, in place of less than one-quarter that quantity, the product of the earlier years. A warehouse, erected in 1853 by E. A. Galloway, was in 1855 transformed by T. S. Henry & Co into a saw mill, in which was placed the first circular, or rotary, for cutting lumber, which was operated at Fond du Lac. It was a decided innovation, and for some time not a decided success; few sawyers knew how to dress a circular to make it do good work, and the woes of the mill men who were hardy enough to experiment with it, well warranted the coinage of the expression "monkeying with the buzz-saw," so frequently applied to a person who has made a bad venture in business. The early circulars were of a thickness (4-gauge) which took fully one-half inch of saw-kerf with every cut of a board, and it was not until some years after their introduction, that saws of ten and twelve gauge were considered practicable. The capacity of the circular was supposed to be one thousand feet per hour, and he would have been considered a romancer of the first magnitude who would have predicted that in later days, sixty, eighty, and even as high as one hundred and thirty thousand feet would be cut in twelve hours with one saw, sixty thousand feet per day being but ordinary work. In 1865, a second rotary was added, and soon after, the Messrs. Henry & Co. sold the mill to Alexander McDonald, who for many years made a specialty of sawing hardwood lumber for agricultural work, and special lumber for McDonald & Stewart's sash and door factory.

J. Q. Griffith began lumbering in 1856, and in 1859 operated the Wilbor & Henry mill; in 1860, he purchased the mill which was built in 1856 by Deacon Fuller, Nathan Leavitt and George Hunter; it contained a mulay saw and siding machines, and cut from seven to nine thousand feet per day. It gave way in 1871 to a much more modern mill, including a mulay and circular, and in 1872 a planing mill was added. The planing mill industry was early made a prominent feature of the lumber industry of Fond du Lac, the Ruggles factory of 1851 being succeeded by that of Mr. Jones, and also that of H. H. Lewis in 1867, of which latter, O. C. Steenburg was the owner for many years subsequent.

In 1856, Asa Pierce, Daniel W. Smith, Charles Chandler, W. D. Sherwood and L. C. Lusk built a mill with a forty-eight inch circular saw and a double cutting "siding machine," together with shingles and lath machinery; the business was conducted under the name of Pierce, Smith & Co., who failing, the business in 1867 passed into the hands of A. C. & R. W. Merryman, Lewis Rood, A. E. Newton and George W. Lusk, passing ten years later into the sole possession of Mr. Lusk by purchase of the other interests.

I. K. & W. C. Hamilton built a mill at Fond du Lac on the lake shore, in 1856, and operated it for many years, A. K. Hamilton and W. S. Finley becoming partners in 1868, the firm name being I. K. & W. C. Hamilton & Co. until 1871, when A. K. Hamilton and W. S. Finley became the proprietors until 1879, when A. K. Hamilton became sole proprietor. The mill was improved, until at the last named date its capacity was rated at 6,000,000 per year.

Charles Crain built a mill in 1863, which he found himself unable to operate satisfactorily, and sold a one-half interest in it to M. D. Moore, and a remarkable partnership, such as perhaps has no parallel in saw mill history, commenced, and for two years the mill was run for one week by Crain, upon his own logs, and the following week by Moore upon his logs, the lumber being kept distinct and separate, as were the individual accounts of the owners, each of whom paid his own men and expenses. In 1866 Mr. Moore bought the Crain interest, and C. A. Galloway became a partner later in the year, and in 1870 W. E. Baker was added to the firm, whose interests were now largely extended; Mr. Baker withdrawing in 1878, Moore & Galloway continued, with a manufacture of from 8,000,000 to 10,000,000 feet yearly.

The manufacture of sash, doors and blinds has for many years given Fond du Lac a national reputation for the extent and character of its production, and as well as a controller to a goodly extent of values, in which respect its admirable location in the heart of an excellent lumber district, enabled its manufacturers to avail themselves of suitable lumber at a minimum of cost. As early as 1856, Charles J. L. Meyer, who later became one of the leading operators at Fond du Lac and Chicago, began in a small way the manufacture of sash, doors, etc., a trade he had learned with his father in Prussia; after careful examination of the machinery then in use in the east, he, with a brother and an apprentice, rented a small power, and laid the foundation for what later became one of the largest operations of its kind in the country. In 1861 he purchased a small portable engine and built him a small shop, in which he did planing mill work, made sash and doors, and took jobs in building and finishing; in 1864 he had progressed to the placing of his goods on the Chicago market, where they became in such demand that his factory was greatly enlarged, and it soon became necessary to establish a branch factory at Chicago. In 1868 he built a saw mill of 80,000 feet daily capacity, to the more economically supply the wants of his three-story factory, covering 100x200 feet of space; in 1874 he built an equally extensive factory at Chicago, which became a model for similar institutions in this and other lands; a few years later, finding that the timber on the Wolf was becoming scarce, he secured a large tract at a point since known as Hermansville in the upper peninsula, where he erected a large saw mill and planing mill.

Uriah D. Mihills, who operated a small saw mill from 1864 to 1868, in the latter year added the manufacture of sash, doors and blinds, and laid the foundation for the Mihills Manufacturing Co., which was organized in 1874 with a capital of $200,000, and soon attained a permanent position, with a trade of $300,000 per year. The company also built a large saw mill for the better supply of stock needed in its extended manufactures.

H. H. Lewis in 1867 built a sash, door and blind factory, with which in 1871 O. C. Steinburg became connected as a partner, and its sole proprietor in 1877; this also became noted for the extent and excellence of its production, adding still more to the fame of Fond du Lac in this branch of its trade. The Fond du Lac Building Association, organized in 1876 and incorporated in 1879, is another of the institutions which in its manufacture and sale of sash, doors, blinds, screens, etc., has contributed, perhaps, to a greater extent than the rest, to the fame of the city as a depot for house finishing material. The McDonald & Stewart factory was started by Mr. Jones in 1867, and two years later became the property of Alexander Stewart and Alexander McDonald, and soon became, by the constant demand for enlargement which was the history of this and other companies at Fond du Lac, one of the leading institutions of its kind in the country.

Other industries of the city having the product of the forest as their base may be noted, as the Fond du Lac Wheel and Seeder Company (1872), for the manufacture of wheels, seeders, grain drills, etc.; the McDonald Manufacturing Co., organized in 1874 for the manufacture of threshing machines; the Fond du Lac Trunk factory, established in 1874; the La Belle Wagon works, which was organized in 1869, and became one of the largest institutions of its kind in the west, with capacity for turning out 6,000 wagons per year; the Spring Wagon Company, organized in 1875, with a small shop and few men, which soon grew to an ability to turn out one thousand to fifteen hundred carriages and cutters per year, and in the prosecution of their business they erected a saw mill in 1879 for the preparation of their stock. There are other industries, like pulp making, wagons, bed frames, sleighs, wagons, etc., of which we lack space to particularize—all of which add greatly to the importance of Fond du Lac as a lumber consuming as well as lumber producing section.

A mill was built at Ripon in 1844 by the "Phalanx" (by which name a community of Fourierites was known), and was a flutter wheel mill, capable of cutting 1,000 or 1,500 feet per day—enough, however, for the wants of the little community which depended upon it. At Waupun, Forest & Smith built a similar mill in 1845, and Ulrich Legler one at Ashford in 1857, Ludin Crouch building one at what was known as Crouchville. The timber about these places, however, was of hardwoods, and the work of the mills confined to local demands. It was not until about 1885 to 1890 that the hardwood forests of the State became generally esteemed for their commercial value, while subsequent to that time the manufacture of every variety of hardwood timber vied in many sections in importance, if not in extent, with the production of pine lumber.

The Moore & Galloway Lumber Company of Fond du Lac, Wisconsin, previously mentioned, was incorporated March 10, 1884, by M. D. Moore, who was elected president, C. A. Galloway vice-president and treasurer, and G. N. Mihills, secretary. This widely-known lumber company is an extensive manufacturer and dealer in gang and circular sawed lumber, together with shingles, lath, pickets, sash, doors, blinds, mouldings, and dressed lumber of every variety. The general offices of the company are located at the corner of Packer and McMillan streets, Fond du Lac. The company owns the three original mill sites of Sexsmiths & Davis, Galloway & Hunter and M. D. Moore & Co., but were so unfortunate as to lose one of their mills (that formerly owned by M. D. Moore & Co.) by fire in June, 1888, just in the height of the milling season. At this juncture, Mr. Mihills being a practical manufacturer of sash, doors and blinds, the company purchased the mill previously operated by C. J. L. Meyer and built a sash, door and blind factory, adding this branch to their already extensive business and continuing with unabated zeal until they were again visited by a fire which destroyed the Meyer plant on September 22, 1895, when they erected a new saw mill which, while not so large in its extent as was the former, is excellently equipped with the most modern appliances, enabling the manufacture with one band saw of 10,000,000 feet of lumber and 3,000,000 lath and pickets annually, while the factory employs 75 hands, with an annual output of 80,000 doors, 80,000 window sash, and 20,000 sets of blinds annually, finding market for their product at Chicago and throughout the northwest. Unlike a majority of manufacturers in their line, this company employs no traveling men, the excellent reputation of their manufactured goods bringing trade direct to their doors, in satisfactory volume. The company owns its own timber supply, which, supplemented with purchase from others, is towed across Lake Winnebago by their own steamer "M. D. Moore," which also does a general carrying trade upon the lake.

M. D. Moore, president of this company, was born in Hampden county, Mass., July 25, 1825, to Wareham and Lucretia (Bosworth) Moore, the latter dying when our subject was but five years of age, after which he made his home with an aunt, Mrs. Levi Adams, at Martinsburg, N. Y., until he was sixteen years of age, during which period he was an attendant upon the common schools of the place. About this time he returned to Massachusetts, and lived with a Mr. Strong of Southampton until he attained his majority, at which time he received $200 in money, his board and clothing being his compensation during the intervening period. He now for several years was variously occupied, as carpenter, logger, and in an organ factory, and being industrious and economical, accumulated the necessary capital to embark in a millinery and dry goods business, which he followed for about ten years at Westfield, Mass. In 1864 he disposed of this business, and coming west to Fond du Lac, formed a partnership with E. H. Galloway, and purchased a saw mill which had recently been erected by C. E. Crane, and the firm successfully continued the manufacture of lumber until 1871, when Edwin H. Galloway (who came to Fond du Lac in 1848) transferred his interest to his brother, Charles Alfred Galloway, who had been closely identified with the business for several years. Upon the incorporation of the Moore & Galloway Lumber Company in 1884, Mr. Moore was elected president of the company, which office he still retains notwithstanding his advanced years.

As one of the pioneer lumbermen of the Wolf river valley, Mr. Moore is widely known and universally respected as a reliable, energetic and conservative man, and as one who has striven most unselfishly to advance the interests of the community in which for so long a period his lot has been cast. He has been one of the most active members of the Methodist Episcopal church for more than fifty years, giving liberally of his time, means and influence in the advancement of its interests. He is president of the Board of Church Extension for the Wisconsin Conference, and in 1884 was its representative at the general conference of the Methodist Episcopal church at Philadelphia. He has been a member of the Republican party from its formation, but has never been an office-seeker. He was married in 1849 to Mrs. Cordelia Bascom of Southampton, Mass., who died in 1852, leaving a young son, Henry H., who died at the age of eight years. In 1853 Mr. Moore married Miss Elida S. Thatcher of Keene, N. H., and to them four children have been born: Henry W., Edwin M., Minnie E. and Fred M.; the sons are all interested in the milling business and are practical lumbermen.

Charles Alfred Galloway was born in the state of New York in 1845, at the town of Harrisburgh, where he continued to reside until 1863, when he entered the employ of Galloway & Hunter at Fond du Lac in the capacity of bookkeeper, but soon after enlisted in the 39th Wisconsin Volunteer Infantry, with which he served until the close of the war, when returning, he resumed his position with the firm until the summer of 1866, when he purchased an interest in the business of the Galloway & Hunter Co., the designation of which remained unchanged until 1870, when a consolidation was effected between that company and the firm of M. D. Moore & Co., under the firm name of Moore, Galloway & Baker, which upon the retirement of Mr. Baker in 1879, became Moore & Galloway, and so continued until 1884, when the incorporation of the Moore & Galloway Lumber Company was consummated.

Mr. Galloway soon after his arrival at Fond du Lac began to take an active interest in all matters pertaining ot the civic and business growth of the city, and became widely and favorably known as a man of broad and practical perceptions, safe in counsel and liberal in view. He was called into the service of the city as an alderman, served as its mayor, and his devotion to the principles of the Republican party found recognition in his appointment by President Hayes, to the office of Revenue Collector of the Third Wisconsin District, while other distinguished honors were not withheld by an appreciative public. He was the originator of the Fond du Lac National Bank, became its first president, and still continues to hold that position, his capabilities as a financier being esteemed of a high order. In 1870 he married Miss Emma A. Kennedy, who died in 1884, having borne him two daughters, one of whom, Nina G., is the wife of F. L. Dain, of the wholesale department of Marshall Field & Co. of Chicago, Miss Anna M. being unmarried. In 1895 Mr. Galloway wedded Miss Flora S. Jewell of Portage, Wis., and a daughter was born to them January 19, 1898.

Edwin H. Galloway was born in Lewis county, N. Y., April 12, 1825, the son of Charles and Anna (Moore) Galloway, both of whom were born, reared and married in England. They came to this country in 1819, and were most worthy people, members of the Free-will Baptist church. Edwin H. was reared upon a farm and was educated at the Lowville academy, Lowville, N. Y., and in his early manhood clerked for about two years in New York. At the age of 23 years he went to Fond du Lac, and on October 30, 1849, married Maria H., daughter of Julius and Mercy (Bosworth) Adams of Lowville, N. Y. Five children were born of this union: Alice M., wife of Charles E. Sheppard of Milwaukee; Florence L., wife of G. A. Knapp, cashier of the Fond du Lac National Bank; Charles J., who died in infancy; Jennie S., wife of C. H. Moore; and Edwin A., who married Carrie T. Pierce. When Edwin H. Galloway first reached Fond du Lac he found but a small hamlet, but believing in its future, he located and engaged in lumbering, which business he continued to follow until 1866, when failing health compelled a cessation of labor on his part to a goodly extent, but not wholly, for he was a man of too great energy and business sagacity to remain idle while less laborious occupation in which his health would permit him to engage, remained open to him. He was for many years at the head of the Fond du Lac Savings Bank; he was an ardent Republican, taking deep interest in the local and national interests of the day, and his services were of a most valuable character to the city and county in the positions of mayor, city treasurer, and chairman of the county board of supervisors. He represented his district for two terms in the State legislature, and in 1871 was urged to accept the Republican nomination for governor, but his ill health and his private interests forbade its consideration. He died in 1876, and no death which has ever occurred in Fond du Lac was more sincerely mourned.

CHAPTER XXIV.

WINNEBAGO COUNTY AND WOLF RIVER DISTRICT.—EARLY HISTORY OF THE GREEN BAY REGION.—OSHKOSH.

THE old government mill at Neenah was built in 1832, Winnebago Rapids as it was then known, being selected as the site of the government agency, but the selection proving injudicious, it was abandoned a few years later. So little was their knowledge of the surrounding country, as to lead the government agents to seek timber for the erection of the necessary buildings upon the waters of the Wisconsin, evidently believing the timber resources of the Wolf to be so limited as to render it necessary to carefully conserve them for the use of the saw mill which they were commissioned to erect. This mill was the one which is frequently mentioned in these pages in connection with Daniel Whitney, who was one of the government contractors, and whose partner was William Dickinson.

In 1843 George Mansur located at the abandoned agency, and assisted in putting the old mill in order, Harrison Reed becoming the possessor of the section of land upon which it was located, and they now set about repairing the dam, which had been neglected and fallen to decay, and by setting the old mill in operation, they hoped to lay the nucleus of a great city which was to be built to attract the large emigration which it was fondly hoped was about to settle in this region. In those optimistic visions they were for a time to be disappointed, but the old saw mill (later operated by Chapman & Douglas), to which gristing facilities were added, remained until in the spring of 1874, when it was destroyed by fire; it was, however, the forerunner of the extensive manufacturing interests which in subsequent years have made Neenah a rich and populous city. Somewhere about this time also Thompson & Porter operated a shingle mill and Knapp & Fowler a small saw mill.

In the spring of 1848 Charles Lindsay and Harvey Jones began the erection of a saw mill, the first erected upon the water power by private parties; this was burned in 1864. During 1848 Donaldson, Lajest & Co. built a planing mill of the crude character of that day, which they soon after transformed into a furniture factory, and later still into the "Empire Flouring Mills".

While this was being done at Neenah, Curtis Reed and Cornelius Northup completed a dam which they had commenced upon the Menasha side of the Fox river in 1848, and in 1850 started a saw mill to which soon after they added a grist mill, and before the close of that year two saw mills, a furniture factory and a tub and pail factory were in operation, and in the following year, steam navigation being established to "Grand Chute," Menasha began its "boom" period. Neither of these towns, however, have ever taken a high position as lumber producing centers.

In the town of Omro, Nelson Beckwith built a mill in 1847 and the mill of H. W. Webster, built in 1867, had capacity for cutting 35,000 feet of lumber and 30,000 shingles per day. George Challoner located at Omro in 1862, and started the manufacture of a shingle machine for sawing shingles, which in its improved conditions has continued to be a prime favorite with the saw mills of the country. It was a machine built to revolve sixteen shingle blocks at a time, around a saw or saws beneath the frame, giving a sawing capacity as high as three hundred and fifty thousand shingles per day. The present mill runs a ten-block machine of two saws having an automatic spalt dropping device, and a capacity for cutting 350,000 shingles per day.

Winneconne has several wood-working establishments, the first of which we find record being a chair factory built about 1849 by H. C. Mumbrue, and operated by horse power. In 1850 Hyde Brothers built a steam power saw mill. In 1878 a steam mill of 50,000 feet daily capacity was erected. E. McNutt had a small mill on the east side, and a sash, door and blind factory was for many years operated by Sickles & Stark. Ship-building and repairing has for many years been a prominent factor in the forestry industry of this section, confined largely to craft navigating Lake Winnebago and the Fox river. A saw mill was built at Eureka in 1851 by J. M. and E. B. Rounds and William Starr. This locality was quite prominent for many years as a lumber point. The saw mill of Smith & Vibbert was built in 1851, and rebuilt in 1868 by Vosburg & Co., being destroyed by fire in 1871. This mill was owned and operated for several years by D. W. Hull.

Winnebago county, and the section of which it forms a most important part, was among the first to attract the favorable attention of early investigators and pioneers. The early French explorations were conducted from the mouth of Fox river, and the English and French traders, military operations and Jesuit missionaries made the region historic for two hundred years before the advent of the progenitors of the present civilization laid the foundations of present development. As a lumbering section it has taken a prominent position from the Wolf river, which flows from the north through the rich pine forests of Shawano and Waupaca counties.

The Grignons, of whom frequent mention is made in these pages, are to be mentioned in connection with the development of Winnebago county. Augustus Grignon, a grandson of Charles de Langlade, the first settler of Wisconsin, with James Portier of Green Bay (later known as "Judge" Portier), established a trading post at Butte des Morts about 1820. Of the Grignon family there were in 1820 seven brothers and two sisters, all of whom were engaged in some branch of the Indian trade under the American Fur Company. In 1832, government contractors were engaged under and in accordance with the treaty of 1831 with the Menominees in building a saw and grist mill at Winnebago Rapids (Neenah). In 1839 the town of Butte des Morts was organized, it being in the then county of Brown, but in the organization of Winnebago and Calumet counties (1842) the name Butte des Morts was changed to Winnebago, which again was changed at a public meeting in the fall of 1840 to Oshkosh, after and in honor of Os-Kosh, the chief of the Menominees.

Logs began to come from the pineries of the north as early as 1842, the first raft of logs coming from Rat river to be manufactured at the Stockbridge mill (elsewhere mentioned), and the lumber rafted to Oshkosh. The first raft from Wolf river was of lumber cut at the mill of Samuel Farnsworth, at Shawano, in the spring of 1842. In 1844 Daniel Whitney, who had been lumbering on Rat river during the preceding winter, sold thirty thousand feet of logs to Harrison Reed, at the price of $2.50 per thousand feet. In the course of the next three or four years four mills were in operation at and in the vicinity of Neenah. By 1850 Oshkosh had half a dozen saw mills and several planing mills, which embraced the manufacture of sash, doors and blinds, a branch of the lumber business which has given the cities of Lake Winnebago more fame than even its extensive manufacture of lumber, in the extent and development which has been witnessed in subsequent years. In 1870 the city of Oshkosh contained twenty saw mills, with a manufacture of 93,000,000 feet of lumber and 20,000,000 shingles. In 1880 the value of the manufactured products of Oshkosh, according to the United States census of that year, was $4,628,085 on an invested capital of $2,746,153, the various industries giving employ to upwards of 2,000 operatives. Of this vast industry the larger half was of the product of the saw mill and the woodworking factories of the city, the manufacture of lumber being reported at 100,000,000 feet of lumber, 145,000,000 shingles, 10,000,000 lath, 440,000 doors and sash, and 82,000 sets of blinds. Quoting from Andreas' History of Wisconsin:

"In 1835 the first commercial logs were cut by employes of Daniel Whitney of Green Bay upon Rat river in the extreme northwestern part of the county (as then constituted). From this region came most of the timber which went to build the mill and houses at the government agency at Winnebago Rapids. New camps were opened in this region, and supplies were sent up the river by canoe or raft, while the logs were rafted to the mills now in operation at Stockbridge or Winnebago rapids. In 1843 Samuel Farnsworth, with his foreman, Charles Westcott, started the first raft down Wolf river, with Oshkosh as its objective point. Morris Foreman commenced the first saw mill at this point in 1847, but Foreman & Bashford of Algoma completed a rival mill first, and ran out the first lumber. In 1849 a State land office was opened at Oshkosh, and a board of works was given authority to direct all river improvements. Frank Moore of Fond du Lac county had meantime become interested in the splendid outlook of the Wolf country as a lumbering section, and purchased an interest in the Shawano mill. In December, 1849, Philetus Sawyer, then thirty-two years of age, who with his young bride from "York State", had settled on a farm at Rosendale, Fond du Lac county, removed to Oshkosh, where he contracted to run a mill "by the thousand," but soon branched out for himself, dealing heavily in logs which he contracted to sell to the mills, finally in 1855 building a mill himself. He purchased large tracts of land as his increasing ability enabled, and with increasing prosperity built other mills and established lumber yards at various points, building up a fortune which in its handling gave him great prestige not alone as a lumberman, but in the political affairs of the State, culminating in his election to the United States senate, in which he intelligently represented his State during two terms. To Mr. Sawyer is due much of the abnormal progress and success of the lumber industry of this section of the State, and in its reflex influence upon that of the State at large. To his influence was largely due the improvement of Wolf river, with its series of booms and improvement of dams and rapids, and the perfecting of systems for the more economical sorting and distributing of logs to the various mills and ownerships. The logs of the Wolf are run into "Boom Bay," which is connected with the Wolf by a canal of about a mile in length, and are there sorted and made into rafts for towing into Lakes Poygan and Butte des Morts, the majority having Oshkosh as their destination. The Wolf Boom Company was incorporated in 1857, with J. H. Weed president. In its organization in 1870, J. A. Paige became president and treasurer, with Philetus Sawyer, D. L. Libbey, E. C. Kellogg and James Jenkins forming a board of directors. William Wall was elected secretary and superintendent, and the capital stock, which was placed at $50,000, was held mainly by those whose logs were to be handled, and who looked in its operation more to the conveniences it presented, than to its direct money making powers, its profits being divided among themselves in the reduced cost of handling logs. In 1871 L. O. Rumery was made manager, and for many years has been president and treasurer of the company."

In the early development of the lumber business of this section, Sylvanus Ripley and J. L. Mead built a saw mill (1850) which was of the usual type, cutting from five to six thousand feet per day; it was located at the foot of Blackhawk street, and gave employ to not more than five or six hands. The firm improved and modernized the mill to a capacity of 50,000 feet of lumber and 50,000 shingles daily, as the increasing wants of the trade demanded. The extensive operations of the Paine Lumber Company of later days, originated with Edward L. Paine and his sons Charles N. and George M., who in 1855 erected a circular mill on the present site of the extensive plant of the Paine Lumber Co. They brought the machinery with them from the east, and

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at that day erected the most modern mill to be found at Oshkosh, having a daily capacity of 25,000 feet. From this beginning has grown and developed the present saw mill and sash and door manufacturing business of the Paine Lumber Company, which in extent and volume of annual output is second to none in the world, of this character.

The mill known in later years as the Scott & Libbey mill, was built in 1856 by Burnham, Foster & Knapp, and was a gang mill, located on the corner of Mill and River streets, and through rebuildings and modernizing was put in first-class shape, so that by 1873 it was classed as a ten million mill, with a shingle capacity of about four million per season.

The extensive sash, door and blind manufacture of Williamson, Libbey & Co. was established on a small scale by George M. Williamson, who in 1866 became a partner in the firm of Griffith & Co., who in that year purchased the planing mill of Morgan Bros., who came to Oshkosh in 1855 from New York, and operated the first moulding machine in the city, and ran the pioneer sash, door and blind factory, which had been erected by John G. Bailey; this factory burned three times prior to 1880, and three saw mills built upon the same site were also burned in 1870, 1873 and 1875. In 1864 they built the Northwestern Planing mills, which in 1867 were purchased by Gould & Hume; the Morgan Brothers the same year purchasing the McCartney saw mill property, their first year's cut amounting to 4,000,000 feet. Their mill being burned in 1870, they erected a large and thoroughly modern mill which was also burned in 1873, and rebuilt only to be wiped out by fire in 1875; again rebuilding to a capacity of 7,000,000 feet per annum, they were for many years one of the most solid firms in the State.

Without going too much into detail, a chronological order of the mills at Oshkosh would give: Beach & Conlee and J. H. Weed in 1862; James L. Clark (the foundation of the Diamond Match Co.), 1863, although it must be said that it was only the manufacture of match splints in which Mr. Clark engaged, until the growth of his business led him in 1878 to the erection of a saw mill for the sawing of splint timber, for which an extra quality of soft and straight-grain timber was requisite. In connection with this mill was a shingle mill, with capacity for manufacturing 20,000,000 shingles per season.

Beach & Conlee built a mill of 3,000,000 feet capacity in 1867, and in 1874 commenced the manufacture of sash, doors and blinds, a trade in which the firms of Beach, Conlee & Bro., and the later firm of Conlee Brothers., have ranked among the most prominent. The mill of Buckstaff Bros. & Chase was built in 1866, and underwent frequent remodelings until it reached a capacity of about 10,000,000 feet of lumber and 8,000,000 shingles per annum. J. H. Weed built at the foot of Tenth street in 1862, with a sawing capacity of about five thousand feet per day, but keeping pace with the improvements which have steadily been introduced into the saw mill world, it was from time to time remodeled and increased to a capacity of 50,000 feet of lumber per day, with 10,000 shingles, and as many lath. The Derby & Curran mill for the manufacture of shingles was erected in 1864, with a daily capacity of 30,000, which was considered a large output in that day, while but a few years later the output of this mill was increased to 80,000 daily. The mills of R. McMillan & Bro. were built in 1868, but their extensive sash, door and blind factory was not erected until 1873, since which time it has been modernized and improved to meet the demands of a rapidly extending trade. George Badger, a lumberman from the east, settled at Oshkosh in 1855, and in 1866, in company with James C. Spalding, built a saw mill which they operated until 1874, when Badger sold out, and devoted several years to logging, and in 1879-80, in connection with J. P. Gould, erected a much larger and thoroughly modern mill. Charles S. Webb erected a shingle mill on Marion street in 1868, the annual production of which was about 7,000,000 yearly, but which, with the increasing demands for shingles was remodeled from time to time, until by 1880 the reported cut reached 20,000,000 annually.

In the statistical records of 1874 the production of lumber at Oshkosh is stated at 100,000,000 feet, while the record of this section embraces operations upon the Wolf and Fox rivers at the following named points: Winneconne manufacture, 10,000,000 feet; Fremont, 400,000; Little Wolf, 3,000,000 New London, 800,000; Jamdamsville, 1,500,000; Pidgeon River, 7,000,000; Embarrass, 7,000,000; Shawano, 3,000,000; Keshena, 800,000; Omro, 12,000,000; Appleton, 3,000,000; Neenah and Menasha, 5,000,000; a total production for that year of 153,500,000 feet. This was something of a falling off from the production of 1872, of which we find a record in gross of 220,000,000, the value of which is named at $3,000,000. The production of 1875, however, is named at 213,000,000 feet, and that of 1876 at but 140,000,000 feet, showing most conclusively the effects of the financial depression under which the nation labored during the period which, beginning in 1873, showed its direct effect about 1875-6, and finally culminated in the spring and summer of 1879.

A Wisconsin lumber journal of that day made the statement that in 1873 there were one hundred mills on the Green Bay shore with a manufacturing capacity of more than 500,000,000 feet of lumber and 900,000,000 shingles, with an invested capital of more than $100,000,000, employing 16,000 operatives. In view of the vast production of lumber during the twenty-five years which have since elapsed, it is interesting to note a remark by the same journal in September, 1870, to the effect: "The timber on the banks of the Wolf river is pretty well thinned out, as logging operations have been carried on upon that stream and its tributaries for a number of years."

Contrasting the earlier with the later development of the lumber industry at Oshkosh and its vicinity, we may look not only at its direct lumber manufacture as generally understood, but call to mind the fact that this is the seat of the largest manufacture of sash, doors and blinds to be found in the nation, the factories of Oshkosh having a present capacity for the manufacture of 1,200,000 doors, 2,000,000 sash, and 450,000 pairs of blinds annually. The capital invested in this industry exceeds $2,000,000, giving employ to 1,500 operatives, whose yearly wages exceed $500,000. The value of material consumed in this manufacture exceeds $1,500,000, and the finished products amount to no less a value than $2,500,000 annually.

In the statistical returns of the Wolf river district for 1874, we find a recorded output of 185,000,000 feet of lumber and 164,650,000 shingles manufactured at different points on the streams which are included in the district for statistical purposes, viz:

Shawano: F. Bradley & Co., 500,000; H. Miller, 700,000. Black Creek: Letter & Appleton starting in that year are credited with 1,000,000 feet, and Henry Hermann, 500,000. New London: William Springstead, 1,500,000. Northport: J. Brown & Co., 500,000. Waupaca: Paine, Dunbar & Co., 750,000. Manawah: J. M. Rounds & Co., 2,000,000. Winneconne: Two mills (no name given), 14,000,000. Omro: Webster & Frisbie, 4,200,000; Rich, Stillman & Co., 4,000,000. The Oshkosh cut is stated in round numbers at 93,500,000. At Fond du Lac: C. J. L. Meyer, 15,000,000; J. Q. Griffith & Son, 3,500,000; Moore & Baker, 8,000,000; Merryman & Co., 5,000,000; Hamilton & Finley, 6,000,000; Alexander McDonald, 4,000,000; James Meiklejohn on Little Wolf, 3,000,000.

Skipping a period of six years, we find a considerable decadence in the cut of the upper waters, the manufacture now centering principally at Oshkosh and Fond du Lac; still we find at Omro: H. W. Webster, with a cut of 3,400,000 feet of lumber and 2,500,000 shingles; at Winneconne: A. Y. Yorty, 2,600,000 feet of lumber and 1,400,000 shingles; Fond du Lac: C. J. L. Meyer, 4,000,000 feet of lumber; Moore & Galloway, 8,250,000 lumber, 1,968,000 shingles; G. W. Sexsmith & Sons, 7,500,000 lumber, 4,000,000 shingles; A. K. Hamilton, 6,000,000 lumber, 4,700,000 shingles; J. Q. Griffith & Sons, 2,000,000 lumber, 1,200,000 shingles; Alexander McDonald, 3,000,000 lumber, 1,250,000 shingles; G. W. Lusk, 4,000,000 lumber, 700,000 shingles; Henry Sherry, 5,700,000 lumber; a total of 40,500,000 feet of lumber and 13,800,000 shingles for that year at that point. At Oshkosh, George W. Pratt is credited with a cut of 8,000,000 feet of lumber and 5,500,000 shingles; James S. McNair, 3,650,000 lumber; Campbell Bros. & Cameron, 5,100,000 lumber, 3,343,000 shingles; Buckstaff Brothers & Chase, 6,000,000 lumber, 3,500,000 shingles; Conlee Bros., 7,000,000 lumber, 3,500,000 shingles, R. McMillan & Co., 8,500,000 lumber, 9,655,000 shingles; Badger & Gould, 4,700,000 lumber, 2,360,000 shingles; Scott & Libbey, 4,000,000 lumber, 2,000,000 shingles; O. D. Peck, 5,500,000 lumber, 4,000,000 shingles; J. H. Weed, 4,500,000 lumber, 1,500,000 shingles; Radford Bros., 8,000,000 lumber, 3,000,000 shingles; Ripley & Mead, 6,018,000 lumber, 5,170,000 shingles; O. Beach & Bros., 5,500,000 lumber, 2,000,000 shingles; Morgan & Brothers, 6,800,000 lumber, 6,400,000 shingles; C. N. Paine & Co. (two mills), 15,000,000 lumber, 16,000,000 shingles; G. W. VanEvery, 3,000,000 shingles; J. L. Clark, 18,000,000 shingles; G. C. Griffith & Co., 12,000,000 shingles; a total for Oshkosh in that year of 103,768,000 feet of lumber and 126,682,000 shingles, and a total for the district of 150,218,000 feet of lumber and 144,411,000 shingles.

From 1875 the production decreased in this district with the continuance of the general depression in the business affairs of the nation, the returns for 1878 showing but 90,907,000 feet of lumber and 66,065,000 shingles, but a returning prosperity in 1880 brought them up again to a volume of 150,318,000 feet of lumber with 144,411,000 shingles. From this date the figures ranged about the one hundred and forty million mark until 1886, when they dropped to as low as 99,000,000 feet of lumber and 45,758,000 shingles, and remained at about the same figures each year until 1892, when they dropped to 68,817,350 feet of lumber and 44,556,000 shingles, the following years showing a production of about 65,000,000 feet of lumber and 25,000,000 shingles, and the record closes with a reported production in 1896 of but 47,000,000 feet of lumber, and 9,894,000 shingles, and about the same quantities in 1897.

Summing up the total operations upon the Wolf river and the tributary streams, we find a gross production from 1873 to 1896 of 2,738,655,055 feet of lumber and 2,897,000,000 shingles, which reduced to logs shows a grand total of 3,101,159,055 feet. But to this ascertained product it is necessary to add such an estimated quantity as will fairly represent the aggregate of production previous to 1873, and from the best authorities obtainable an addition of 60 per cent is not excessive, bringing the total to a volume of 4,961,854,488 feet, or in round numbers, five billion feet, as the product of the Wolf river district.

Although the manufacture of lumber at Oshkosh is not so large now as formerly, the number of persons employed in factories is as great or greater.

The Paine Lumber Company—George M. Paine.—The history of Oshkosh would be incomplete without reference in a more personal manner to some of the leading actors in the development of its lumber industry, and of these the personnel of the present Paine Lumber Company demand especial mention. The progenitor of the business was Edward L. Paine, a native of Pomfret, Connecticut, who early in this century married Miss Eleanor Ross, a native of Pennsylvania, and a few years after took up his residence at Canisteo, in Steuben county, New York, where he remained until 1855, engaging in the lumber trade of that section, removing in that year to Oshkosh. His family consisted of four sons and one daughter, the sons being indoctrinated from an early period in the business which was followed by their father. Soon after their arrival at Oshkosh, a circular saw mill was erected on Fox river, upon the site since occupied by the mills of the company. This mill was rated at a capacity for the manufacture of 60,000 feet in twenty-four hours, and was twice destroyed by fire and rebuilt. The firm was for many years known as C. N. Paine & Co., consisting of the father, Edward L. Paine, Charles N. Paine and George M. Paine. Charles N. was a thorough business man, as well as a man of the highest patriotic impulse, having served during the war of the rebellion as captain of Company B, Twenty-first Wisconsin infantry, where he endured many hardships, and proved himself a gallant soldier. He died in 1885. Major Nathan Paine, another brother, sealed his devotion to his country with his blood, having been killed in the battle at Campbelltown, Georgia. He went into the service as a captain in the First Wisconsin cavalry, and for gallant conduct was commissioned as major. He was a young man of sterling qualities, a graduate of Lawrence university of Wisconsin, and of the Albany, New York, law school. He left a wife and daughter. Charles N. Paine was a bachelor. Dr. Edward R. Paine at his demise left a wife and one daughter. The only daughter of Edward L. Paine was Elizabeth, who became the wife of R. P. Elmore of Milwaukee, a prominent business man of that city. The father, Edward L., died in 1893, at the advanced age of 93 years, during which period he had witnessed and shared in the development of a nation from its infantile struggles in the east, to the wonderful development which extended from the Atlantic to the Pacific, and from the lakes to the gulf. He had seen the forests fall before the advance of a mighty nation, as the wave of progress swept over the Alleghenies, and with ever accelerating strength, transformed the prairies over which but the Indian roamed during his boyhood days, into fertile fields and populous cities, the granary of the world and the pride of 70,000,000 people, a nation upon which the world looked with wonder. His wife, a most amiable and lovable woman, prominent in every good word and work in the community in which she dwelt, and like her husband, a prominent member of the Methodist Episcopal church, preceded him to the reward of the just, two years previous to his own demise.

George M. Paine was born in 1834, in Orwell, Bradford county, Pennsylvania, and received an academic education at the Elmira academy and Alfred seminary, New York. He, like his brothers, served his time in the water saw mill operated by his father on the Canisteo river, and accompanied the family when in 1855 they emigrated to the west, bringing with them the machinery for the saw mill which they erected at Oshkosh. In 1863 he was married to Miss Martha Wheeler, a native of New Haven, Vermont, two sons and four daughters having blessed the union. The sons, Edward W. and Nathan, are now associated with their father in business. From the earliest inception of the business at Oshkosh, a planing mill formed a no unimportant element in the business, which increased from year to year. The misfortune of a fire resulted in the total loss of $45,000, leading to the erection of a superior and more modern mill, which in its turn was destroyed by fire with a loss of $60,000 on which was an insurance of but half its value, and which again led to the construction of the present mills and plant, combining all that is new and adapted to the economical manufacture of lumber, sash, doors and blinds. The old firm of C. N. Paine & Co. was in 1882 succeeded by the "Paine Lumber Company," incorporated with a capital of $1,000,000, of which Charles N. Paine was president, George M. Paine vice-president, J. W. Himebaugh secretary and treasurer, until the death of Charles N. in 1885, when George M. Paine was elected president, J. W. Himebaugh vice-president, A. B. Ideson secretary, and Charles Nevitt treasurer, Edward W. and Nathan, sons of George M. Paine, becoming members of the board of directors.

The plant of the Paine Lumber Co. covers about forty acres of ground, and comprises a band saw mill 75x225 feet, box factory 60x60 feet, planing mill 60x200 feet, with central power house 60x80 feet, with engines furnishing 750 horse-power. Also a sash, door and blind factory 160x240 feet and 90x200, with power house 80x80 and steam engines of 1,200 horse-power, together with several acres of ground covered by warehouses for the storage of lumber and the products of the factory. The company operates its own electric light plant and steam heating plant, for the illumination and heating of all the buildings, including the offices and residences occupied by the members of the company. A complete telephone system connects all portions of the works, offices and dwellings, and the entire plant is equipped throughout with the latest improvements in machinery and safety appliances, many of the most useful adjuncts being the invention of the owners and employes of the company, through advising with each other as to the methods by which their own labors would be lightened and themselves as well as their work improved, it being the policy of this company to encourage its employes in all things which would promote their interests and advance their intelligence. The works are fitted throughout with automatic fire extinguishers, calculated to extinguish a fire in its incipiency. The log stock for the saw mill is obtained from lands accumulated by the company in the Wolf river valley and in Michigan, the cut of the mill comprising but about one-half of the stock required for the use of the factory, the annual output of which is about 400,000 doors, 120,000 pairs of blinds, 550,000 window sash and 2,500 packing boxes, besides a large manufacture of stairs, mantels and other interior finish in pine and hardwoods. The company maintains large distributing warehouses at Minneapolis, Minnesota; Cleveland, Ohio, and agents in New York City, Philadelphia and New England points, a large proportion of their stock finding market in the east, with extensive shipments to European points. The company gives employment to about 1,000 hands, some of whom have continued with them for thirty years and more. The employes for the most part own their own homes, but about thirty families occupy dwellings owned by the company. Formerly and for many years the company operated their own logging camps, but more recently have had it done by contract.

Having been accustomed to lumbering from his boyhood, Mr. Paine is thoroughly acquainted with every detail of the business from the stump to the finished product, and the present excellence of the plant, unexcelled if equaled by any in the nation, is in no small degree due to his foresight and excellent business qualifications. Avoiding the rock upon which so many business houses have been wrecked, he has persistently concentrated his energies upon this business, refusing to be led into outside speculations, preferring to give his undivided attention to building up the largest and perhaps most complete institution of the kind to be found in the country or the world, and in this he has been ably assisted by Messrs. Himebaugh and Ideson, who have been associated with him for many years.

Mr. Paine is an ardent Republican, and was a delegate to the National Republican convention in 1872. He is a member of the Masonic fraternity and a Sir Knight of Oshkosh Commandery No. 11 Knights Templar. As a member and ruling spirit in lumber organizations, more especially in those connected with the sash, door and blind industry, his excellent judgment has given him a well-deserved position of confidence in the councils of business men, while in the community in which he dwells, no man commands higher esteem.

Hon. Philetus Sawyer.—One of the men who has controlled circumstances in life and commanded success is the Hon. Philetus Sawyer of Oshkosh, Wisconsin, for while it is true that he, as every other man whose father was a good and worthy citizen, must acknowledge a debt of obligation for wise counsels, watchful care and intelligent supervision in early youth, yet in the great arena of public life he has had, just as every other successful person, to wrestle alone and unaided. Mr. Sawyer was born in Rutland, Vermont, September 22, 1816, and when about one year old his parents moved to Essex county, New York, where his father followed the calling of a blacksmith and farmer, and was in the main successful, but became impoverished by signing notes. On this account, Philetus was put to work on the farm and in the shop when he should have been in school, and at the age of fourteen began working out for the sum of $6 per month. Among the pines of the Adirondack region, lumbering was carried on in a primitive way, and in the woods and at a neighboring saw mill Philetus started in a calling that has resulted in the accumulation of a moderate private fortune, and a name that is synonymous with the lumbering interests throughout the length and breadth of this land.

The region in which his boyhood was spent was productive of vigorous men and women—physically, mentally and morally—and he was a worthy type of the region. His disposition was ambitious and energetic, and when he had reached the age of seventeen years, he determined to begin life's battle for himself, and with this purpose in view he borrowed $100 of an elder brother, purchased the remaining four years of his minority of his father, and before the term of purchase had expired had repaid his brother from his earnings as a saw mill hand and had spent two terms advantageously in a good school. After a short time he began operating the mill in which he had formerly been an employe, but as it was a primitive structure, with a capacity of only two or three thousand feet per day, money did not flow rapidly into the coffers, and in 1847, with $2,200 earned by hard work and economy, he came west with his wife, formerly Miss Melvina M. Hadley, whom he married in 1841, and his son, Edgar P., who was born December 4, 1842. He settled in Fond du Lac county, Wisconsin, purchased a farm, which was then his great ambition, but [illegible] of poor crops served to allay his farming enthusiasm, and the temptations held out by the Wolf river pineries led to his removal to Algoma, now a part of Oshkosh, in 1849. The previous winter he had worked for small wages in the pineries, and in 1850 he operated a mill at Algoma, sawing by the thousand, and then leased the mill and operated it on his own account and with success until 1853, when he formed a partnership with Messrs. Brand and Alcott, lumber manufacturers at Fond du Lac, and with them became the owner of the mill he had been operating. It was soon rebuilt, its capacity increased, and the product shipped by sailing vessels to Fond du Lac, where it was marketed. Mr. Alcott retired in 1856, and the firm of Brand & Sawyer continued until 1862, at which time Mr. Sawyer purchased his partner's interest for $10,000 more than the original purchase price. In 1863 Edgar P., his son, was made a partner, and the firm of P. Sawyer & Son became one of the strongest lumber firms in the country. All their operations prospered, and from time to time much of their surplus capital was invested in pine lands, which proved profitable even beyond their expectations. He is a stockholder in extensive lumber mills on the Menominee river (see chapter on Marinette, Wis.) and elsewhere. His method of supplying the mills at Oshkosh with logs, has always been to cut the logs in winter and float them down Wolf river and its tributaries in the spring. On small tributaries dams were built at intervals to raise the water, and the dams opened when necessary, to create a flood on which the logs could be floated. Many years ago there were large tracts of very fine pine lands on the head waters of the Wolf river which were not accessible because it was impossible to drive out the logs upon the streams, owing to rocks and rapids and the smallness of the water-ways. In 1878 Mr. Sawyer resolved to investigate this timber tract, and after several weeks spent in camping and tramping in the woods, with experts to examine the river and tributaries, it was decided that arrangements could be made to bring the logs out of their native home to the mills, and Mr. Sawyer purchased a large tract at a nominal price. A charter was procured, and the Keshena Improvement Co. formed to improve this land and collect toll for logs, with a capital stock of $100,000, of which a large part was taken by Mr. Sawyer, as others could not be induced to take it. With about sixty men and several teams he went, himself, to start the work, notwithstanding the fact that old woodsmen and river men laughed at him and called his scheme impracticable. The work progressed, success attended him, and to him is due the credit of having brought millions of feet of the best timber of Wisconsin onto the market. This also serves to illustrate the fact that Mr. Sawyer has a mind of his own and has always thought for himself, although he has never disdained the advice and opinions of others. He has always been a born leader of men, a keen judge of human nature, and these traits have been of inestimable value to him in his extensive lumbering operations. During the early part of his life he supported the principles of democracy, but since the formation of the Republican party he has always been one of its staunch supporters, and owing to this and his well-known mental qualities, he was elected to the Wisconsin legislature in 1857, and brought to the duties of this office the same thoroughness, attention to details and sound judgment which had previously marked his business career. Owing to his increasing business duties, he declined further political honors until 1860, when he was again elected to the legislature, and during this term so profoundly did he impress the people with his worth and mental capacity that he was soon prominently spoken of as a candidate for congress but he declined the proffered honor. In 1863 and 1864 he was mayor of Oshkosh, in the discharge of which duties he showed his usual thoroughness and official ability. In 1864 he was elected to congress and served in that body during the exciting times attendant upon the close of the civil war. He continued a member of the lower house for ten years, when he refused to serve longer. During his long congressional career he served on numerous important committees, and was of inestimable service to his district.

In 1876 the West Wisconsin railroad from Tomah to Hudson became financially embarrassed and mortgages were being foreclosed, when Mr. Sawyer and some New York and Chicago capitalists formed a syndicate and purchased the road, and later purchased the North Wisconsin railway, of which Mr. Sawyer was made president. The latter acquired the St. Paul and Sioux City line also, and thus connected four weak corporations into one strong one known as the Chicago, St. Paul, Minneapolis & Omaha Railroad Co., of which Mr. Sawyer was vice-president, a director and a member of the executive committee until 1883, when he severed his connection with the road. In 1881 he was honored with an election to the United States senate, was re-elected without opposition in 1887, and in the 48th and 49th Congress he was chairman of the committee on railroads and also served on the committee on post-offices and post-roads. In the 50th, 51st and 52d Congress he was chairman of the committee on post-offices and post-roads. During his public career he became one of the most conspicuous characters in American history, known for his incorruptibility, his faithfulness to his duties, his broad and sound judgment of men and affairs, and his patriotism and love for his native land. He is a model American citizen, and is a gentleman by instinct and training. He was one of the founders of and has since been an officer in the First National Bank of Oshkosh, and is also connected with several other banking institutions. His life has been one from which others can profit, and serves to illustrate what can be accomplished by "Young America," when he possesses nerve, energy and intelligence. At the age of 82 years Mr. Sawyer is still active, with a clear mind and judgment, and is by no means relegated to the rear in the political and business operations in which he has for so long participated.

Hon. Carlton Foster.—Among the leading citizens connected with the lumber interests of Oshkosh is Carlton Foster, who has been a resident of the city since 1855, and for forty-two years has been closely identified with its lumber and manufacturing interests. Mr. Foster was born in Essex county, New York, in 1826, his parents being Auran and Chloe (Soper) Foster, who reared their son upon a farm where he had plenty of hard work and but little and limited advantages of an educational nature. At the age of twenty he commenced learning the trade of a millwright, an occupation which he followed for many years without much financial success. In 1854 he married Miss Sybil Storrs, a native of Vermont, and daughter of Ira and Elizabeth (Gale) Storrs, and in 1855 came west and settled at Oshkosh, where he followed his trade for about four years, and in 1859 invested his small savings in a saw mill which he continued to operate for several years. In 1865 he formed a partnership with J. V. Jones, and for seventeen years they operated the Eagle Planing mill, in connection with the manufacture of sash, doors and blinds. In 1884 Mr. Foster became largely interested with the Joseph Hafner Manufacturing Company of St. Louis, Mo., reorganizing the business in 1892 by the incorporation of the Hafner-Latham Manufacturing Co., of which Mr. Foster was and still remains president. The main office of this company is at St. Louis, with an extensive manufacturing plant at Oshkosh. In 1892 Mr. Foster was one of the organizers of the Foster-Munger Company of Chicago, which also is a large producer of sash, doors, blinds and interior finish, and of this company also Mr. Foster is president. Mr. Foster ranks among the most progressive and fearless business men of Oshkosh, and the estimation in which he is held cannot be better exemplified than in the fact of his election for three full terms as mayor of a city in which his political opponents were in a majority, the highest tribute which could be paid in recognition of his public spirit, and devotion to the interests of the city. For three full terms in 1873, 1874 and 1883 he was elected to serve his district in the State legislature, a distinction in which his excellent business qualifications enabled him to win the confidence and esteem of his constituents, and of the State at large. A man of large perceptions and liberal heart, he has always been recognized as a liberal contributor to all objects having as their end the advancement of the interests of the city of Oshkosh, and no less to all worthy objects having as their aim the benefit of his fellow man.

Morgan Brothers.—The occupations to which Mr. John Rogers Morgan is devoting his attention are of the utmost importance to any community, and this is especially so in regard to the lumber business, which he is very extensively and successfully carrying on under the firm name of Morgan & Brother. He was born near Aberyswith, Wales, January 19, 1831, son of Thomas and Catherine (Davis) Morgan. In 1833 the parents crossed the ocean to the United States, and first settled in Marcy, New York. Later they resided in Oneida, Herkimer and Cattaraugus counties of that state, where the father was engaged in agricultural pursuits. John Rogers Morgan passed his youthful days in attending the common schools and assisting his father on the farm. Later he attended an academy at Rushford, Alleghany county, New York, and there finished his education. His father was also a carpenter by trade, and in his shop John R. became an expert with the tools. In the year 1855 he joined his brother Richard in Oshkosh, Wisconsin, and soon found employment there in the sash and door factory. While thus engaged he attended strictly to business, and becoming convinced that it was a paying one, he and his brother and two fellow employes decided to buy the plant. This was a big undertaking with their limited means, but they met with success from the first and were in a fair way to make a big fortune, when they lost their entire plant by fire. After several years of hard work they paid off their indebtedness, John R. working by the day at his trade to pay his share. His brother Richard having become interested in a sash and door factory, John R. entered his employ and took charge of the mechanical department, giving his entire time to the selection of material and the manufacture of high grade products. His capacity for utilizing to the best advantage the labor of others made him indispensable to the business, and in 1862 he became junior member of the firm of Morgan & Brother. This enterprise prospered, grew to vast proportions and yielded the brothers a fortune. Before many years the concern greatly increased its manufacturing facilities, and in addition to this the brothers engaged extensively in manufacturing lumber. They have large tracts of pine land, and every year convert logs from their own land into finished products. In carrying forward their part of the business John R. was the leading spirit of the firm, and its success has been largely due to his sagacity and excellent business qualifications. When occasion required he went into the camp, organized and carried forward the work of the logging camps in winter, and superintended the work of manufacture in summer, so that from start to finish nearly everything was subject to his supervision. He was one of the promoters of the German American Bank of Oshkosh and is vice-president of the same. He has served as a member of the board of aldermen of Oshkosh. In politics he is a Republican, and in religion is a Congregationalist, having been a deacon and trustee of the First Congregational church for many years. He was married in 1857 to Miss Eleanor Hughes, a native of the Empire State, born in Oneida county, and is the father of one son and two daughters.

Richard T. Morgan is also a product of foreign soil, born in Wales, October 6, 1829. Like his brother, he was educated in the common schools, and in addition to tilling the soil became familiar with the carpenter trade in his father's shop. He followed the latter occupation until 1855, being for some time employed in a sash and blind factory, and then came to Wisconsin with his father. After seeking for a suitable location they settled in Oshkosh, and a few days after settling in that city Richard obtained employment at much better wages than he had obtained in York State. A few weeks later his father purchased a plant near by and then returned to New York for his family. About this time Richard and his brother, with two other young men, purchased a sash and door factory as above mentioned. Their joint capital at that time was not over $200. After the fire they were left without capital and in debt. The outlook was so discouraging that two of the partners abandoned the enterprise, leaving John and Richard Morgan to shoulder all the debts. Soon after Richard formed a partnership with Watts & Jones, and again engaged in the former business. This proved successful, until another fire left him without means. By hard work he succeeded in getting another start, and in the fall of 1859 built another sash and blind factory. Later his brother John R. became associated with him in the business, and the firm subsequently became Morgan & Bro. A few years after building a saw mill for the manufacture of lumber it was burned, but was soon replaced by one of the most complete and one of the largest in the city. Two years later this was burned. A third one was built only to meet the same fate, in the great fire that destroyed a large part of Oshkosh in 1875, the Morgans losing $60,000 above their insurance. This left them seriously embarrassed financially, but they were used to adversity and began the struggle again, with the result that they are again in the front ranks of substantial business men. Richard Morgan owns large tracts of timber land in Michigan, Wisconsin and Mexico. He is vice-president of the National Union Bank of Oshkosh. In 1856 he married Miss Martha Roberts, who died in 1858, leaving one son, Albert. In 1861 Mr. Morgan married Eleanor Roberts, sister of his first wife, and has two daughters. From early manhood Mr. Morgan has been a member of the Congregational church, and has been deacon in Plymouth Congregational church for over forty years. Both brothers are held high in the estimation of all acquainted with them.

Orville Beach of Oshkosh was born at Kingsbury, Washington county, New York, in 1826. His grandfather, Titus Beach, was a native of Connecticut, and while still a young man moved to Kingsbury, which even at that day was considered the "west," and as one of the early settlers of the locality, became a prominent farmer, manufacturer and citizen. His son John H. Beach was born and grew up on the farm, and married Abigail Phillips, a native of Washington county. Their son, the subject of this sketch, was educated at the common school of Kingsbury, and at eighteen years of age found employment in the lumber camps of James C. Finch, a lumberman of Glens Falls, where with wages of $13 per month he obtained a thorough, economic and useful business training. Saving his earnings, he at the end of five years purchased an interest in the business, in which he continued for seven years, when he disposed of his interest for the sum of $10,000 and decided to go west and try his fortune in a new country, selecting Oshkosh as a desirable

Leander Choate

location. After a careful investigation and exploring of the Wolf river he invested his means in pine lands, and believing that it would pay better in the long run to await better transportation facilities than at once to cut his timber, he engaged in other lines of business, building the first grain elevator at Oshkosh and handling grain with success, until in 1861, when he formed a partnership with his brother-in-law E. N. Conlee, and the firm erected a saw mill which they operated for many years under the cognomen of Beach & Conlee, and later with the addition of G. W. Conlee, as Beach & Conlee Brothers. The operation proved a successful one, and with an increasing demand for lumber, their plant was increased by the addition of modern devices and improved methods for the manufacture of lumber, shingle, sash, doors, etc. After some years Mr. Beach sold his interest in this plant, and in connection with his brother Darwin Beach, and a brother-in-law, W. P. Warwick, erected another mill which was successfully operated for many years and until the timber which Mr. Beach had purchased was exhausted. Subsequent to this Mr. Beach became interested in the lumber business with D. L. Libbey, with whom he continued until his retirement from active business. During all this period Mr. Beach was giving his attention to other interests looking to the development of Oshkosh. He was one of the projectors and one of the first directors of a project known as the Oshkosh & Mississippi railroad, taking an active interest in its affairs until its completion to Ripon, when it became a branch of the Chicago, Milwaukee & St. Paul system. He was one of the original stockholders of the First National Bank of Oshkosh, and one of the organizers of the German National Bank, as also of the South Side Exchange Bank of Oshkosh, and of the Wisconsin National Bank of Milwaukee. He was married in 1859 to Miss Helen A. Thompson, a native of Saratoga county, New York. They have traveled extensively, and have hosts of friends.

Bray & Choate.—Among the older and pioneer firms of Oshkosh, is that of Bray & Choate, composed of James M. Bray and Leander Choate, who in 1860 succeeded to the business which had been established in 1857 by William Bray, father of James M., who in 1856 had settled at Oshkosh and engaged in saw milling and grist milling in connection with a Mr. Tolman, under the firm name of Bray & Tolman. The saw mill of this firm ran one mulay saw with a cut of from three to five million feet yearly for a few years, when by the addition of a circular, the cut was increased by about two million feet per year. In 1867 the firm erected a mill at Oconto, which they operated for two years. From 1884 to 1888 they operated a saw mill at Merrill. The principal business of the firm, however, has from the first been in logging and dealing in pine lands, their logging operations amounting to about 15,000,000 feet yearly, with a present holding of about 150,000,000 feet of standing pine in the states of Michigan and Wisconsin. During the long period of their partnership their operations have been upon an enlarged scale, reaching as high as $700,000 in a single purchase. In February, 1892, they organized the Oshkosh Log & Lumber Company at Choate, Michigan, with a capital of $500,000, of which Mr. Choate was made president, George W. Roe vice-president and Thomas Daly treasurer. This company erected a double band saw mill with capacity for cutting 20,000,000 feet per year, obtaining its supplies mainly from the lands of Bray & Choate, and finding a principal market for its manufacture in the east. In September, 1892, Bray & Choate organized the Lake Shore Lumber Company at Tomahawk Lake, with Mr. Choate as president, Mr. Bray as vice-president, and E. R. Lafever as secretary, erecting a saw mill with capacity for the manufacture of 8,000,000 feet per year, the outlet of which is wholly by rail and principally to western markets. That both gentlemen are personally familiar with all the details of the lumber business, is fully evidenced by the long period of their partnership and the vastness of their operations. In 1894 the Choate-Hollister Furniture Company was established at Oshkosh, having a capital of $100,000, and of this company Mr. Choate is president, S. W. Hollister vice-president and manager, and J. Howard Jenkins secretary. This company manufactures tables, sideboards and other articles of furniture from the excellent hardwoods of the region which during the reign of the "pine king" were considered of but little value, but of late years have assumed their legitimate position of value in the estimation of the lumber world. For the disposition of the product of this factory, the Wisconsin Furniture Company was established at Lincoln, Nebraska, through which their goods are distributed throughout Kansas and Nebraska, while no inconsiderable quantity finds market in the east, the annual output of the factory being about $75,000 in value. Both Messrs. Bray and Choate are interested in banks located at various points in Wisconsin and Michigan, Mr. Choate being vice-president of the Commercial Bank of Oshkosh, of which he was one of the original organizers, Mr. William Bray, father of J. M. Bray, having been one of the first directors. Mr. Choate is also president of the First National Bank of Rhinelander, of which he was one of the founders. He has been a director and vice-president of the First National Bank of Manitowoc, Wis., since its organization, and is a director of the First National Banks both at Marshfield and New London, Wisconsin.

Mr. Choate was born in the state of Maine in 1834, going to Oshkosh in 1857, where he at once engaged in lumbering and land locating, packing supplies to camps and assisting loggers. About a year later, having become acquainted with the country, he took up the business of estimating timber. In 1860 the partnership with Mr. Bray was formed, which has now continued for thirty-seven years, presenting a picture of mutual confidence and esteem rarely to be met with in business life, in its long continuance. The operations of the firm during this long period have included every branch of the logging and lumber industry. Their early lumbering experience was with a mill of the primitive type common to the day, which in comparison with the improved methods of a later day, fully justifies the sarcasm of Mr. Choate as he describes it as an "up and down mill, which went up one day and down the next, and gigged Tuesdays and Fridays." It was too slow an operation for the enterprising young men, who soon turned their attention to the more active work of logging and handling timber lands, the market being at that time most active. With the introduction of more expeditious methods of manufacture through improved machinery, together with the rapidly increasing consumption of lumber at remunerative values, manufacturing of their own logs became more profitable than did their disposition to others, and from 1867 to 1880 the firm put in an average of fifteen to twenty million feet per year, and as has already been stated, erected mills at various places. Their operations have included the Fox, Oconto and Wisconsin rivers, while their purchases of timber lands have extended to any and all points which presented favorable opportunities for investment, and their unqualified business success has been the result of intelligence, and mutual thought and confidence in each other. Mr. Bray has for some years been in poor health, but while throwing greater responsibility upon his more robust partner, has retained his interests in the company and its varied operations. William Bray, his father, reached Oshkosh in 1856 and at once engaged in milling, and it was to the business thus established by him that his son and Mr. Choate succeeded in 1860.

William J. Wagstaff.—For many years the name of William J. Wagstaff has been well-known throughout Wisconsin as synonomous with the lumber industry. His career has been marked with substantial results, and his industry and enterprise command the admiration of all. He first saw the light of day in Oshkosh, Wisconsin, July 21, 1858, and in that state all of his life has been spent. In 1881 he commenced work for H. W. Webster of Omro, Wisconsin, and was with him for two years. After that he took charge of the mill plant of W. L. Miller of Winneconne, from 1883 to 1885, and in the last named year came to Oshkosh, where he was connected with the sales department of James P. Gould for one year. In the year 1886 he was stockholder, secretary and treasurer of the Washburn Lumber Company, a company engaged in the manufacturing and wholesaling of pine lumber. This company was located at Oshkosh, and had a capital stock of $25,000. It closed its business in 1890. Mr. Wagstaff then engaged with J. R. Washburn in business, and was associated with that gentleman until 1893, buying and selling pine and hardwood lumber. In the month of June, 1893, he bought the interest of Mr. Washburn, and the following year began buying logs and manufacturing them into lumber, the output for 1896 being 12,000,000 feet of lumber and 4,000,000 shingles. He bought and sold 3,000,000 feet of lumber besides, in 1896, and 3,000,000 shingles. The lumber he has been manufacturing is nearly all on the Ashland Division of the C. & N. W. railroad between Oshkosh and Antigo, and consists largely of red oak, basswood, rock and soft elm, birch and maple, butternut, cedar and its products, white pine and hemlock. A new industry has sprung up in a short time of using the small hemlock, as small as five inches in diameter, for wood pulp for making paper. Mr. Wagstaff has taken 3,000 cords in the past six months off the lands where he is logging. This sized hemlock has never had a market value, being considered worthless His stock of logs this year is equal to that of last.

Charles W. Radford.—This gentleman, a member of one of the leading lumber concerns of Oshkosh, is thoroughly posted and up-to-date on all questions pertaining to the lumber business. He is a product of Oneida county, N. Y., born in 1853, a son of William and Elizabeth (Robinson) Radford, natives of Needinsworth and St. Ives, England, respectively. They were reared, educated and married in their native land, and in 1852 emigrated to the United States and settled in Prospect, New York, where Mr. Radford, Sr., although reared on a farm, engaged in lumbering. In 1855 he came with his family to Wisconsin, and with an elder brother, Stephen Radford, was engaged in logging and lumbering for others until 1871, at which time they purchased an interest in a saw mill, and the firm of S. Radford & Bro. was founded, which has since become widely known. They purchased the mill of D. L. Libby at the foot of Wisconsin avenue, Oshkosh, which was a circular mill with a capacity of 40,000 feet per day. Some fifteen years later this mill was dismantled, and a band mill established, with a capacity of 125,000 feet daily, which, with improvements, is still in operation. This was the second successfully operated band mill in Wisconsin, the first being at Marshfield and operated by ex-Gov. William H. Upham. In 1879 a complete sash, door, blind and moulding factory was added, which they have since successfully operated. Their door output is 150,000 yearly, sash 200,000, pairs of blinds 25,000. Their trade is mostly in the west, and they have a branch office in Chicago, on 22nd street, in charge of William A. Radford, used for distributing purposes. Charles W. Radford was educated in the public schools of Oshkosh, which he attended until he was eighteen years of age, but prior to that time, after he had attained the age of ten years, he worked at various times in saw mills at all sorts of work, and thus became thoroughly familiar with all the branches of the business. When his father became part owner of a mill, Charles W. became the head of nearly every department, and was in the employ of his father and uncle until 1881, when he became an equal partner in the business, and the firm name was changed to Radford Bros. & Co. Charles W. Radford is a director in the German American Bank of Oshkosh and a director of the National Manufacturing Co., and is one of the most active and enterprising business men of the city. Much of the success of the firm is due to the personal attention he has given to all departments of the work and to his careful adherence to business ethics. He is the owner of a fine farm, well stocked with handsome thoroughbred horses, and is a man who has traveled extensively in this country and in England. He is a Knight Templar mason. In 1882 he was married to Miss Nettie J. Haff.

James Doughty of Oshkosh may properly be named as one of the pioneers of that city, and one of its early lumbermen. Mr. Doughty was a native of New Brunswick, having been born in Charlotte county in 1832, and six years later removed with his parents to the state of Maine, where he continued to reside until 1855, at which time, in company with his brother Benjamin, he turned his face westward, and for four years was a resident of Oshkosh. He then returned to Maine for a period, but in 1864 again came west, and joined his brother in lumbering on Wolf river, a business which they carried on together until 1880, when they sold out to Bray & Choate. Their output the first year of their joint operation was about 2,000,000 feet, which for that day was a large cut for an individual firm, but as the years rolled on, their operations were extended to 4,000,000 feet during the last year.

Benjamin Doughty, the elder brother, was born in Charlotte county, New Brunswick, in 1828, and after the brothers came to Oshkosh in 1855 they engaged in the logging business and with so many years connected with the lumber industry of the Wolf river, it is no misnomer to give them the appellation not only of pioneers, but to rank them among the most experienced operators of the northwest, men who not only endured all the hardships and vicissitudes of a new and wild country, but have been potent in its development to the high stage of civilization and mercantile importance which now attaches to Oshkosh and the well-developed country of which it is a center. The brothers are well versed and familiar with all branches of the lumber trade, from the forest to the lumber yard, and from the camp to the office work, and in all departments have gained the reputation of energetic and honorable business men. Beginning life with most limited means, both have reaped a competency, and are enjoying the evening of life at their well-appointed residences on Algoma street, Oshkosh, secure in the respect and confidence of their fellow citizens in the city which each has contributed toward bringing to its present prosperous condition.

Williamson & Libbey Lumber Co.—Among the leading industries of Oshkosh and the state of Wisconsin the lumber business hold a place second to none, and among the well-known corporations engaged in this industry the Williamson & Libbey Lumber Co. may be said to hold its own in that respect also. This company was formerly a partnership concern established under the firm name of Williamson, Libbey & Co. in 1875. In 1884, in the month of January, the Williamson & Libbey Company was incorporated, with a capital of $200,000. D. L. Libbey was president, J. R. Jones vice-president, and G. M. Williamson secretary and treasurer. All of these members are now deceased. The present officers are: F. H. Libbey, president, J. C. A. Libbey, vice-president, and J. J. Stevenson, secretary and treasurer. In connection with their present business, they owned and operated what was formerly known as the old "gang mill," built in 1850 by Knapp & Jenkins. It was later a single band mill, and manufactured lumber, lath, shingles, etc., but burned in 1893. Since then the Williamson & Libbey Lumber Co. have devoted their attention to the manufacture of doors, sash, blinds, etc., making a specialty of the celebrated dowel door. They purchase their stock in the open market from northern mill points, and consume about fifteen million feet annually. Their output is about 250,000 doors, 200,000 windows and 75,000 pairs of blinds, besides brackets, inside finishings, etc., and their market is in Chicago and the east. They own and control a large distributing house at Minneapolis. The plant covers about twenty acres, including main factory 163x133 feet, dry kiln 136x56 feet, one warehouse 100x36 feet, and one 150x118 feet, both two stories high, besides sheds, etc. About 175 hands are employed. The mill is well equipped with all modern machinery, fire protection sprinklers, and has its own electric light plant, etc. The Libbey family is a prominent one in this section, and its members have been practical lumbermen. Daniel L. Libbey, who died in 1894, was born at Whitefield, New Hampshire, in 1823, and became familiar with the lumber business with his father, Nathaniel Libbey, who was a native of Maine. The latter followed farming in his native state until after his marriage, when he removed to New Hampshire and embarked in the lumber business, operating a little water mill, following lumbering in one way or another until a short time prior to his death. He reared seven sons, all of whom were lumbermen during most of their lives. Three of them are still in the business in New Hampshire, and one of them is with the Williamson & Libbey Lumber Co.

In 1849 Daniel L. Libbey went via Cape Horn to California, the land of gold, and spent three years in the mines. After returning to New Hampshire for a short visit, he then again sought the Pacific slope, where he remained until 1855. The same year he returned to his native state, married, and the same year came to Oshkosh, Wisconsin, where he bought a half interest in the Stilson & Chase mill. With this he remained until 1873, when he sold out and took an interest with Campbell Bros. & Cameron for a few years. In 1879 he bought the old gang mill, which he operated with fair success until 1884, and then turned it over to the Williamson & Libbey Lumber Co. Mr. Libbey was a progressive and thorough-going business man, and made many improvements in his mill. He was familiar with all the details of the business to which he was so devoted, and well understood the locating of lands, the workings of the camp, floating of logs, etc. He was a strong man physically, and used often to walk from his home in Oshkosh to the pineries, a distance of sixty miles, in one day. He acquired the habit of walking long distances while in the western mountains, and it was no trouble for him to walk day after day. He was one of the pioneer lumbermen of Oshkosh, and a man who had many warm friends. He met with reverses in 1862, having his mill destroyed by fire and no insurance. However, inside of ninety days he had another and more complete mill in full operation. In 1871 the Union National Bank of Oshkosh was organized, and Mr. Libbey was made president. He was a public-spirited citizen, and spent freely of his means to promote the growth and prosperity of the city, and to furnish employment for the laboring element. Mr. Libbey was also treasurer of the Thompson Carriage Co., president of the Farson & Libbey Co. of Chicago, and of the Fulton & Libbey Co. of Minneapolis, Minnesota.

James Howard Jenkins.—There is not a city of any size in the civilized world but recognizes the necessity and importance of lumber manufactories, and one of the leading establishments of the kind in the northwest is the Conlee Lumber Co., of which Mr. Jenkins has been vice-president and secretary ever since 1880, the date of his connection with the establishment. Maine is the state of his nativity, and in the city of Bangor he first saw the light, January 24, 1841, but from the time he was eight years old up to the age of manhood, his home was in the literary center of the new world—Boston, where he acquired an excellent education. His patriotism and love of country led him, at the breaking out of the civil war, to join Company A, Boston Light Infantry for three months, during which time he was detailed for garrison duty at Fort Warren in Boston harbor. As soon as his term of enlistment had expired, he joined Company A, 12th Massachusetts Infantry, for three years, or during the war, and upon the organization of the company was made sergeant, and later orderly sergeant and sergeant-major. In July, 1862, he was commissioned second lieutenant of Company B, 21st Wisconsin Infantry, which command was mustered into service September 5, 1862, at Oshkosh, comprising 960 men. In November of that year Mr. Jenkins was promoted to first lieutenant and adjutant of that regiment, in which capacity he served until his capture by the Confederates at the battle of Chickamauga, September 20, 1863. From that time until April, 1865, he was in various rebel prisons, and suffered many and severe hardships. While a member of the 12th Massachusetts he was a member of the Army of the Potomac under Gen. Banks, and enjoyed the experiences of the famous retreat up the Shenandoah Valley, at one time marching fifty-three miles in forty-eight hours. He was with McDowell in his disastrous attempt to gain a position in Fredericksburg, at which time he was under the immediate command of Gen. Pope, and with him moved forward to the Rapidan and back to the Rappahannock. October 21, 1861, he was under rebel fire at Ball's Bluff, and at Clear Mountain, August 8, 1862, and again on the 30th day of the same month fought at the second battle of Bull Run. He was also at Perryville, and December 31, 1862, was at Murfreesboro, and was finally captured at Chickamauga. After experiencing the horrors of Libby, Danville, Macon, Savannah, Charleston, Columbia and Raleigh, he was marched to Washington for exchange. He made two attempts at escape while a prisoner, but was each time recaptured. He obtained thirty days' leave of absence at Annapolis, resigned from the service the following month, and came to Oshkosh, where his home has since been. He is a member of the G. A. R. Post No. 241. His father, James Jenkins, was born in Falmouth, Mass., June 24, 1809, to Capt. Weston and Elizabeth (Robinson) Jenkins, the latter being a great-granddaughter of the Rev. John Robinson of Leyden, pastor of the Puritan church at that place, from which the Puritans sailed for America in 1620. Capt. Weston Jenkins was the fourth generation from John Jenkins, who was of Puritan stock also, and came to this country from England with several brothers in 1620, settling at Scituate, Mass. He was a sea captain, and eight of the vessels in which he owned an interest were captured by British vessels during the war of 1812. During this struggle he was captain of an artillery company, and performed gallant service for the United States. He was a man of great energy and strength of character. James Jenkins, when a lad, had a great ambition to emulate his father and become a sailor, which he did after remaining in school until he was sixteen years of age. He then secured a position on a sailing vessel bound for New York, and from that place sailed for Stockholm as an ordinary seaman. The work was congenial, and at the age of twenty he held the rank of captain, and during his life as a seaman visited many portions of the world and had many thrilling experiences. He finally located at Bangor, Me., and with a brother-in-law engaged in shipping lumber to the West Indies and the Cape Verde Islands, his vessels bringing back sugar and molasses. This business finally proved unprofitable and he abandoned it, and with John Goddard bought a township of pine timber which they converted into lumber, but although the business was successful Mr. Goddard was not congenial as a partner, and in 1844 Mr. Jenkins began manufacturing and selling lumber in Bangor by himself, his product being sent to England. He afterwards bought a water-power and built a mill, but later became interested in steam saw milling on the Kennebec river, and the lumber was sent to St. John, N. B., thence to England.

Owing to the death of his wife in 1848, Captain Jenkins removed to Neponset, Mass., in 1849, where he was engaged in the lumber business with N. Pratt, with an office in Boston. In 1852 he built a fine home at Dorchester, a few miles from his lumber yard at Neponset. Later, with others, he purchased 40,000 acres of land in St. Lawrence county, N. Y., for $40,000, and a saw mill was erected on Rackett river. The most of the money for this property was furnished by Captain Jenkins, and owing to losses by freshet in Maine, amounting to $50,000, and with $100,000 tied up in his New York property, the panic of 1857 came and he was forced to turn over everything to his creditors and was thus left penniless. His friends secured for him a commission business which furnished him living expenses, but he was not satisfied, and in March, 1857, he started to explore the far west, and finally made his way to Oshkosh, Wis., where he soon formed a partnership with A. B. Knapp in the lumber business, and the following year removed his family thither. In 1859 much of his best stock was taken by Fox river, the canal, and the Wisconsin and Mississippi rivers to St. Louis, which proved a very profitable deal and placed him on a firm financial footing once more. He was associated with Knapps, father and son, until 1865, when his son, James Howard Jenkins, and his nephew, O. F. Swift, returned from the war and became his business associates under the firm name of J. Jenkins & Co. The winter of 1865-6 was noted for its bitter cold, and Capt. Jenkins was making the rounds of his various logging camps on Wisconsin streams, and while making his way through almost impassable snow drifts to a small tavern twenty miles away was almost frozen to death, but after becoming thoroughly warmed he pushed on ten miles farther that day. The next morning he started for home, which he reached at midnight after a cold ride of sixty miles. His anxiety for his youngest son, Fred, was the cause of his hurry, and serves to illustrate the determination and perseverance which ever characterizes his actions. A severe attack of peritonitis was the result, from which he never fully recovered and for this reason a trip to Europe was advised. He sailed from New York December 1, 1866, and after visiting England and France, returned to America the following summer.

For some years prior to his death he was compelled to go south each winter, and several trips were made to Europe, one of which, when he was accompanied by his family, extended over two years. His last winter was spent in New Orleans, where he died, attended by his wife and son, March 22, 1885. His burial was held from Trinity church, Oshkosh, of which he had been for many years the senior warden. Capt. Jenkins was the personification of integrity, a man of strong character and mentality, and a model citizen. He was twice married, first August 15, 1832, to Phoebe B. Donaldson, who died in Maine in August, 1848, and July 2, 1851, to Ann Elizabeth Ward, of Bridgeport, Conn. The son and immediate subject of this sketch, James Howard Jenkins, has been a resident of Oshkosh since 1865, and upon becoming his father's business associate operated what is known as the "Gang Mills," cutting about 12,000,000 feet per annum. Upon the failure of the father's health the business was closed up, and in 1880 James H. Jenkins connected himself with the Conlee brothers, and organized the Conlee Lumber Co. He is president of the Thompson Carriage Co., the Oshkosh Clothing Manufacturing Co., is secretary and treasurer of the Choate-Hollister Furniture Co., the Oshkosh Street Railway, a director of the Schmit Bros. Trunk Co., president of the German National Bank, member of the Milwaukee Commandery of the Loyal Legion, a 32d-degree Mason, president of the Board of Education, with which he has been connected for many years, is senior warden of Trinity Episcopal Church, is at present chairman of the Oshkosh Lumbermen's Association, and is otherwise connected with the city's interests. His business tastes run in the direction of "industrials," and while a stockholder to a greater or less extent in several banks, his interests are mainly in manufacturing establishments, employing a very large number of hands. The concerns with which he is connected pay over one-tenth of the entire amount of the tax levy of the city. He has no liking for the game of politics, and no yearning for any of its honors. He is decidedly literary and musical, has a fine library and is a great reader.

William Campbell.—One of the earliest among the developers of the lumber business of Oshkosh was William Campbell, who was born in Washington county, N. Y., in the year 1800, and whose death occurred at Oshkosh in 1878. Mr. Campbell reached Oshkosh in July, 1858, and in the following year he purchased a shingle mill which had been built several years before. This mill Mr. Campbell continued to operate until 1870, shipping a large proportion of its product to Albany, N. Y., and other eastern markets. The mill was located on the north side of the river upon the site now occupied by Radford Brothers. In 1871 the three sons of Mr. Campbell, D. M., R. C., and J. D. Campbell, became associated in the business, under the firm name of William Campbell & Sons, and a saw mill was erected on the south side of the river, with capacity for the manufacture of 6,000,000 feet of lumber and 5,000,000 shingles annually. This firm continued until in 1877, when Mr. Campbell retired from active business, being now seventy-seven years of age.

William Campbell was for many years one of the most active, energetic and useful citizens of Oshkosh, taking an active and prominent part in all matters which concerned the well-being and advancement of the city. While never seeking, and refusing to accept public office, he was an ardent Republican, and his counsel was valued in all matters in which the advancement of local, state or national interests were involved. He was an active promoter of the railroad interests centering in this section of the State, and subscribed $1,000 to the fund which was needful to induce the extension of the Milwaukee & St. Paul railroad to Oshkosh. He was equally alive to the social and religious interests of the city, and an active member of the United Presbyterian body, building a church edifice in the maintenance of which his liberality was conspicuous. In his death the community mourned the loss of one of its most valued members.

After the death of Mr. Campbell, the business was reorganized by his sons, who, with the addition of their brother-in-law, G. H. Cameron, formed the firm of Campbell Brothers & Cameron which continued until 1890, when the business was incorporated under the name of "The Campbell & Cameron Company," with an authorized capital of $175,000, all of which has since been held by the original incorporators. The mill of this company contains one circular saw, with a yearly capacity for the manufacture of 6,000,000 feet of lumber and about 6,000,000 shingles. A short time previous to the incorporation of the company, an extensive planing mill and box factory was added to the plant, which consumes a large proportion of the coarser stock in box manufacture, while the facilities afforded by the planing mill enables the finer manipulation of that portion which finds market by rail to the retail yards of the company's customers in the west. In connection with the operation the company has a dry kiln, and makes a specialty of kiln-dried flooring of all kinds, their lumber manufacture including maple and other hardwoods, of which they own considerable tracts in Waupaca county.

In 1894 the company erected a small mill with one circular at Helvetia, for the manufacture of lumber and of cedar shingles from stock growing upon adjacent lands belonging to them.

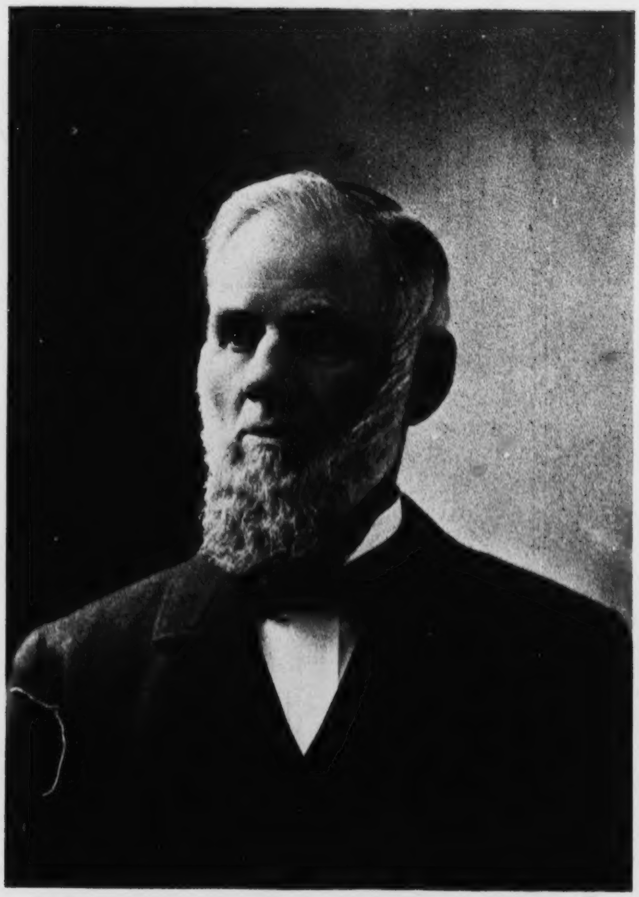
The company maintains the high standard established by the founder of the business, and its members rank high among the most influential citizens of the city of Oshkosh.

L. O. Rumery and Wolf River Boom Co.—This well-known company, of which L. O. Rumery is the present president, was established many years ago, when J. C. Lewis and others organized a company for that purpose. After a few years the business was sold to J. H. Weed, who did all the boom work for some years, during which time, in 1864, he made a cut from Wolf river to Boom bay in Lake Poygan, a distance of about one-half mile, making a saving of about nine miles, which proved of great advantage and greatly facilitated the work. In the year 1864 the Wolf River Boom Co. proper, was organized, with a capital of $50,000, and was ably officered with intelligent and well-informed men. However, the business did not prosper financially, and in 1871, owing to some dissensions among the members, it went into bankruptcy, but was at once reorganized with L. O. Rumery as manager, which proved a wise choice, and the next year (1872) all outstanding obligations were fully paid and a small surplus was left over. This was the most prosperous year of its existence, during which time 207,000,000 feet of logs were handled. Prior to that year the boom company rafted the logs from various points along the river, but since that time have had charge of the logs only after they reach the boom. During the greatest prosperity of the company, employment was given to about four hundred men from April to November. Mr. Rumery, its present president and treasurer, was one of the original organizers, and naturally took great interest in the success of the enterprise, and without flattery it may be stated that he has done more to place it on a sound financial basis than any other one man, and has been at the head of the concern for the past eight or nine years. He is a native of the Pine Tree State, born at Calais in 1827, and when nineteen years of age he did his first work at logging. In 1854 he left Maine and came west to Oshkosh, Wisconsin, where he was one of the first to engage in the logging business, a part of the time conducting business alone and a part of the time being associated with others. From 1870 to 1880 he was a member of the firm of Kellogg, Rumery & Co., and in 1878 this firm cut as high as fifteen or twenty million feet. Later he was interested in the firm of Loper & Rumery, and although these gentlemen own large tracts of valuable timber land in Minnesota, they are not at present in active business. They were for some years engaged in logging on Deer river, a branch of Big Fork of Rainy river, Minnesota, the logs being taken by raft to Rat Portage, Canada. In 1878 Mr. Rumery and Simon Post went to Oconto, where they obtained a few pails of trout which they carried to the Evergreen, a tributary of Wolf river, and emptied into that stream the first that were planted there, and owing to this the Wolf river and tributaries comprise one of the best fishing localities of Wisconsin. Mr. Rumery is a pioneer logger, and has had unlimited experience as a lumberman and saw mill man. He is also interested in a cattle ranch in Tom Green county, Texas, known as the "Sawyer Cattle Company." His father was a lumberman before him in Maine, and while growing up he acquired a knowledge of and a love for the business. The parents eventually removed to the west, and both died at Oshkosh.

F. W. Follett, the present secretary and manager of the Wolf River Boom Co., has been connected with the business since 1873, and has held his present positions since 1884, in which capacity he has proven himself capable, trustworthy and faithful.

Robert McMillan.—Very few of the successful lumbermen of the past fifty years were born with a golden, or for that matter with a silver, spoon in their mouths; Robert McMillan of Oshkosh, Wisconsin, was no exception to the rule. He was born at Warren, New York, September 26, 1830, his father being of sturdy Scotch descent, his mother tracing her ancestry back to the early days of the settlement of the colony of New York. Living among the mountains in the neighborhood of Lake Genoa, the father pursued the calling of a farmer, and like many others similarly situated, engaged in lumbering during the winter, and Robert as he grew to an age in which he could be of use to his parents, alternated between the privileges of the district school and the work of the farm and the forest, securing a sound physique, a fair education, and developing that indefatigable energy which was the characteristic of his future life. In 1853 he married his schoolmate Miss Alice Johnson, and the young couple, anticipating Mr. Greeley's advice of a few years later, went west into the new country of the lake region to make a home, and, as the sequel proved, to realize a success, not only in the accumulation of wealth, but in contributing in no small degree to the advancement of intelligence and virtue of the community in which for nearly a half century their lot was cast. Bringing with them a capital of $250, the young couple settled at Oshkosh in 1855, and for a couple of years Mr. McMillan worked at the carpenter's trade, but the financial crash of 1857 paralyzing that, in common with all other industries, they hied them back for a season to New York state. The west, however, had charmed this enterprising couple, and in 1858 they again turned their faces toward the setting sun, stopping at Muskegon, Michigan, where Mr. McMillan found employ with the Newaygo Lumber Company, having charge of their shipments which were wholly to the Chicago market. Although the salary was $750 a year he was obliged to relinquish it because of his health, and again made his way to Oshkosh, where in company with his brother-in-law C. W. Davis, and Richard T. Morgan, he engaged in a small way in the manufacture of sash, doors and blinds, under the firm name of Morgan & Company. A year later McMillan and Davis sold their interest in the factory, and erected a shingle mill, which had but begun its operations when the war of the rebellion broke out, causing many manufacturing operations to suspend for a time, they, however, continuing to operate, and succeeding in establishing a most prosperous business.

In 1865 Messrs. McMillan & Davis became interested in a plant which had previously been operated



L. O. Rumery

by Morse & Beckwith in the manufacture of threshing machines, but this not proving satisfactory to Mr. McMillan, he sold his interest and purchased a saw mill, which was located at the point where he continued in business until his decease. Some short time later he was joined in business by his brother, John H. McMillan, and the connection continued until the death of John in 1878. With his wise business perceptions Mr. McMillan kept his mill and the extensive sash, door and blind factory which he maintained in connection with it, in line with the improvements in machinery which became essential for the more economical manufacture of his products, and the primitive mill of his earlier operations was improved, so that from 1880 the yearly cut of lumber averaged 10,000,000 feet, of which a large proportion was worked up in the factory, while his shipments to outside territory included many million feet unsuited to or not required by the home industry, which his excellent business qualifications had made one of the most extensive and profitable in the city or state.

Mr. McMillan from the earliest developed great interest in all matters connected with the growth and prosperity of the city of his residence, and was largely interested in all which contributed to the prosperity of the surrounding country. He was president of the Fox River Paper Co., and was for some years a director in the National Bank of Oshkosh. He was for many years a prominent member of the Methodist Episcopal church, contributing liberally of his means, and representing the Oshkosh conference as a lay delegate to its conferences at Cincinnati and Omaha, and at his decease bequeathing to the Algoma M. E. church the sum of $3,000, and a like sum to the board of trustees of the Wisconsin conference. He was also deeply interested in educational matters, and remembered the Lawrence university at Appleton, Wisconsin, with the handsome endowment of $25,000, his substantial interest in this institution having previously been made fully manifest, other than in the valuable service rendered by him as vice-president and a member of its official board. Many other religious and benevolent organizations have had abundant cause to remember Mr. McMillan as a most substantial friend.

Mr. McMillan died July 23, 1897, after a lengthy illness of a dropsical nature, and was followed to the grave by a large concourse of his fellow citizens, among whom he had led a long and useful life, mourned as one whose influence had been most salutary and beneficial to the community. The wife of his youth, the companion of his passing years, the helpmeet sharing his early struggles and rejoicing with him in his successes both as a business man and a useful citizen, survives to mourn together with his son, Robert McMillan, Jr., and his three sisters, the loss of an exemplary and affectionate husband and father.

Mr. C. H. Paxton, who for fifteen years has occupied the position of confidential clerk and manager of the extensive business interests of Mr. McMillan, was named by him as one of the executors of his will, and was appointed by the court as special administrator pending the probating of the will.

Seymour W. Hollister.—There are men of such broad minds, wide information and wonderful tact that, by husbanding their forces and planning their various enterprises with something like military precision, they are enabled to accomplish splendid results in different walks of life. Gifted with natural ability of a high order, Mr. Seymour W. Hollister has devoted his talent to the lumber business, in which he has gained a prominent place and an enviable reputation. He is a product of Racine, Wisconsin, born in 1845, and the son of Asa and Sarah M. (Tombs) Hollister, natives of New York and England, respectively. In 1843 the father came to Oshkosh on a visit, but in 1845 he settled here permanently, and was engaged in contracting, milling and logging. He retired in 1860 and died in 1889. He was well and favorably known. Mr. and Mrs. Hollister were the parents of four children, sons, named as follows: William W., Phillip W., Guy W. and Seymour W. The eldest, William W., was a soldier in the civil war in the First Wisconsin Cavalry. Afterwards he embarked in the lumber business at Oshkosh, and followed this successfully until his death in 1896. Phillip W. resides in Chicago, and is secretary and treasurer of the Manufacturers' & Builders' Supply Co. of that city. He has been in lumber and kindred businesses all his life. Guy W. resides in Oshkosh, and is in the lumber business for the same concern as Phillip W. Seymour W. Hollister grew to manhood in Oshkosh, Wisconsin, received a good practical education, and in 1864 enlisted in Company B, Third Wisconsin Cavalry, serving until the close of hostilities. In 1866 he began logging with his brother, William W., and continued with him until 1868, when he decided to embark in business for himself. In 1882 he formed the company of Hollister, Amos & Co., bought Ripley & Mead's saw mill at Oshkosh and began manufacturing lumber. In 1883 he became a partner in the firm of R. McMillan & Co., manufacturers of lumber, sash, doors and blinds, but withdrew from this firm in 1887. The following year he formed the company of Hollister, Jewell & Co., Hon. Philetus Sawyer being the company. They purchased a limit of 9,500 acres in the Province of Ontario, Canada, and the same year erected a double band saw mill at Garden River, northern Ontario. This firm manufactured lumber there for five years, about twenty million feet per year, but the mill was burned in 1893 and since then has not been rebuilt. They are manufacturing at Cheboygan, Michigan, having sawing done there. In connection with Leander Choate, J. H. Jenkins, George T. Brown, A. E. Thompson and others, Mr. Hollister established the Choate-Hollister Furniture Co., Mr. Hollister becoming vice-president and general manager. They will not make goods of poor quality, but those only which are thoroughly "up-to-date," and their extensive trade, east and west, keeps them in touch with current needs, while their designers use their skill in developing original ideas. Mr. Hollister has always been a Republican in politics, and was not only a member of Governor Upham's staff, but also of Governor Scofield's staff, with the rank of Colonel. He is a member of the G. A. R., Elks, Masonic and Hoo Hoo. In the year 1868 he married Miss Katie G. Smith, a native of Germany. She died November 19, 1896. Four children were the fruit of this union: Ray A., Winifred S., Carl and Rex. Mr. Hollister is president of the Manufacturers' and Butchers' Supply Co. of Chicago, and is one of the progressive and substantial business men of Oshkosh.

CHAPTER XXV.

LAKE MICHIGAN AND GREEN BAY REGION.—SHEBOYGAN, DOOR, KEWAUNEE, GREEN LAKE AND BROWN COUNTIES.

SHEBOYGAN county is located near the southern limit of the pine belt of Wisconsin, and bordering upon Lake Michigan, was among the first sections to attract the attention of the lumberman, as for many years it was a main reliance for the dealers of Milwaukee, Racine and Chicago as a supply point. William Paine and John Crocker in the fall of 1834 came up from Chicago and located, building a saw mill near the junction of the Sheboygan and Mullet rivers, at a point which would now be midway between Sheboygan City and the falls of the same name. The county was originally well forested, pine timber predominating. The mill built by Paine & Crocker was in 1835 sold to William Farnsworth, who was about the biggest man of the day, on the west coast of Lake Michigan, combining the occupation of Indian trader with an enterprising spirit which was ready to make money out of anything which offered. With the offering of the lands for sale by the government, Mr. Farnsworth became half owner of the plat of Sheboygan village, and in the land craze of 1836-37, sold a sixteenth interest in his holdings for $30,000, and a second sixteenth for $25,000. Corner lots were sold by map in New York City for as much as $8,000 and even as high as $15,000, and there seemed no limit to the optimism which pictured Sheboygan as the center of a region not only abounding in timber, which at this time was but lightly esteemed, but as abounding in minerals, of which the abundance of gold, silver, copper and iron was the theme upon thousands of lips of those who here were to find that the "Tide in the affairs of men, which, taken at the flood, led on" * * * to all that easily acquired wealth which was the day-dream of those who having escaped the "Tulip craze," and the morus multicaulis excitement, were ready to listen to the seductive tales of the mythical gold-fields of Sheboygan county. With the issuance of President Jackson's "specie circular," and the resulting financial panic, the dreamers awoke to realize that they had been duped, and the "city" of Sheboygan retrograded until only James Farnsworth (a brother of William) and family, and a Captain Thorp remained as evidences that a city had existed.

During the craze a second saw mill had been built at "the Falls," by Col. Silas B. Steadman, who with four others constituted the population at that point. With the returning era of prosperity, however, the actual advantages of the region began to be appreciated, and by 1849 the saw mill industry was represented by one steam and seventeen water power saw mills, which by 1870 had increased to twenty-six saw mills, and seventeen grist mills, with tanneries turning out $200,000 worth of leather, wagon timber exported to a value of $30,000, and coopers' stock to an equal amount, while the population had reached 31,759 souls according to the census of 1870. Among the early mills may be named a double or two sash saw mill built by Littlefield & Giddings in 1844, and a mill built at Sheboygan Falls in 1845 by Joseph Richardson, to which in 1864 a circular saw was added; this mill was operated for fully half a century, although in the remodeling and rebuilding but little trace of the original remained. A mill was built at Howard's Grove on Pigeon river in 1856 by F. Beckfield, later known as the "August Frome" mill, being purchased by him in 1878. H. G. Miller built a mill a mile south of Howard's Grove in 1857. F. Arpke built a mill at Franklin in 1853, to which he added a planing mill in 1868. At Cascade a small mill was built in 1846 by James Preston and Rev. Huntington Lyman.

As an agricultural region Sheboygan county has in later years attained an enviable reputation, and the development resulting from the early efforts of the lumberman, have brought a far more durable source of wealth to its inhabitants. In its dairy interests, and in the manufacture of cooperage, as well as in its production of grain, it has taken a position as one of the wealthiest counties in the state of Wisconsin. While Sheboygan at one time, as stated, was one of the main points upon which Chicago relied for its lumber supplies, it by 1877 is credited with but 400,000 feet shipped to that city, and does not again appear in the receipts at that point until 1881, when 1,360,000 feet appears to its credit, dropping to 820,000 feet in 1882, dropping out for two years, and returning in 1885 with 300,000 feet to its credit, a practical illustration of the decadence of its lumber interests.

The mill of William Payne and Col. Oliver C. Crocker, previously mentioned, was located about three miles from the mouth of the Sheboygan river, and was probably the first mill erected in that region, and cut a considerable quantity of lumber for local use, and a year or two later for shipment to Chicago and Milwaukee.

Col. Crocker used to relate an amusing incident of his early experience with the pioneers of the Chicago trade. He had sold a quantity of lumber to a Chicago man on sixty days' credit; the debtor proved dilatory, and in fact neglected to pay, although profuse with his promises. The colonel became exasperated at last, and in one of their altercations being threatened, felt compelled in self-defense to give his debtor a sound thrashing, after which he sought the nearest magistrate (one Casey) and entered complaint against himself, stating all the facts to the justice, who asked if he made a good job of it, and on the colonel replying that he thought he had, Justice Casey gave him a short lecture, ending up by saying: "I thought at first that I would impose a fine, but if you licked him good, and as he deserved, I'll stand treat." This may be accepted as a fair specimen of many of the judicial decisions of the earlier days in the west, when a sense of the fitness of things had greater weight with the administrators of the law, than did the written law itself, and no doubt the practical views adopted by the Solomons of the period, had a most salutary effect in restraining crime, and meting out justice to offenders, both in criminal and civil actions.

Payne & Crocker met with decided opposition from the Indians, who at first resisted their building, thinking that the dam would spoil their fishing, but finally withdrew their objections.

William Farnsworth, who in 1830 had a mill at Menominee, also built a mill in 1837 about three miles from the mouth of the Sheboygan river, and in this year Col. Silas Steadman built a mill at the falls, about five miles up the river. Payne, who succeeded Col. Crocker, sold their mill in 1839 and removed to Milwaukee, where he engaged in the lumber business, and in 1846 started the town of Sackville, twenty-five miles up the Milwaukee river, where he had a saw and grist mill, and kept a store and tavern for the convenience of settlers and travelers.

Door county was for many of the earlier years a prolific source of lumber supply, while from the absence of streams for rafting, much of the log stock for the mills has in later years been towed across Green bay from the mainland on the west. The supply of local timber was large, however, and until the erection of a larger class of mills was the main dependence of the local residents. Of the earliest mills we find no record. In 1853 D. S. Crandall built a small mill, afterward enlarged and improved, and known in later years as the "Spear" mill. In 1854 Daniel H. Burtis of Rochester, N. Y., built a mill of the type current in those days. Charnley Bros. of Chicago built a mill in 1856, and in 1878 organized the Sturgeon Bay Lumber Company, the mill being from time to time repaired and remodeled to a capacity of 70,000 feet per day, the company becoming one of the prominent operators in the Green Bay district. John Leatham in 1870 built what was known as the Tornado mill, which burned the same fall, nine operatives perishing in the flames. Rebuilding the mill, he operated it for three years, when it was again burned, to be again rebuilt. In 1876 Mr. Leatham built a mill known as the Sturgeon Bay mill.

The county of Door was not organized until 1851, and the lumber production previous to that date was but slight; of the later operators, the Sturgeon Bay Lumber Company, of which A. W. Laurence was for many years secretary and manager, Schofield & Co., shingle manufacturers, and the Messrs. George O. and A. M. Spear have been the most prominent. There have been many mills scattered over the peninsula, including the Hill mill at Clay Banks (1863), the Tufts mill (1872) at the same place, the Arlt mill at Bailey's Harbor, together with many, others at various locations. This section has proved one of the most prolific in the production of cedar in ties, post and telegraph poles, few if any sections in the northwest equaling Door county in this respect. The manufacture at Sturgeon Bay found market principally at Chicago, sending thither 4,589,000 feet of lumber and 8,239,000 shingles in 1875, which by 1880 was increased to 11,640,000 feet of lumber and 19,978,000 shingles. The manufacture continued at about these figures for several years, the report of the mills for 1892 being 12,332,000 feet by the Reynolds Lumber Co., and for 1897, 6,000,000 feet of lumber by the W. O. Brown Lumber Co., whose cut was 1,000,000 with 23,000,000 shingles; and George Pancratz Lumber Company, with 5,000,000 feet of lumber and 800,000 shingles.

The first settlement of Kewaunee county was in 1837 by Montgomery & Patterson of Chicago, who built a saw mill on the Kewaunee river about three miles from its mouth at Lake Michigan. When the mill was completed they were unable to obtain supplies for a winter's operation in logging, and their men deserted them. The land had been secured by Joshua Hathaway of Milwaukee, who had made the government survey, and on the failure of the Chicago parties, resumed possession. In the winter of 1842-3 John Volt of Chicago bought the property, and repaired the dam, which had become broken, and got out a cargo of lumber in 1843, rafting it from the mill to the vessel. In 1851 a pier was built which did away with the difficulties of shipping, and Mr. Volt erected another mill about a mile farther up the river, and in this year a steam mill was commenced at the lake. In 1863 Dikeman & Latimer built a shingle mill, and in 1880 Mr. Dikeman built a saw mill, which soon after was destroyed by fire. Slauson, Grimmer & Co. built a saw mill in 1862, and the mill being burned a year later was rebuilt. Andrew Hassel built a saw and shingle mill in 1876, with capacity for the manufacture of 8,000 feet of lumber and 20,000 shingles per day. At Ahnapee, A. Hall built a mill in 1851 on the south branch of the river near the lake. In 1870 C. L. Fellows built a mill at this place. In 1874 Henry Christman built a mill at Montpelier in this county, which was burned three years later, but at once rebuilt. One of, if not the first saw mill built in the Green Bay region was erected by Col. John Bowyer, an Indian agent on "Dutchman's Creek," in 1818, but whether a saw or grist mill, or both, the records are silent.

So early as 1843 Hiram McDonald, a soldier of the war of 1812, built a mill on Grand river, in Green Lake county, whose product was wholly devoted to the uses of the settlers of this new county. In 1848 Wilson & Phelps built a steam saw mill at Berlin City, at which place in 1860 Frederick W. Cooke had a mill. At Markesan, John B. Seward built a saw and grist mill in 1846. Hiram McDonald had built a small mill in 1843 at this point. Sherwood & Dart built a mill at Dartford in 1846. This county was better adapted to farming than to the production of lumber, the product of its mills being principally hardwoods for the use of the settlers, and the wood-working establishments of the neighborhood, and it has never figured to any great extent in lumber statistics.

At Green Bay in Brown county, J. C. Lathrop erected a saw mill and for several years carried on a lumber business, which he subsequently disposed of to W. L. Candee, by whom it was subsequently sold to W. S. Candee, who in 1866 sold to J. W. Woodruff, H. H. Wheelock, J. S. Kendall and J. C. Denison, forming the firm of J. W. Woodruff & Co., which in 1876 built a second mill at Lily Lake. The capacity of these mills was about 45,000 feet of lumber and 140,000 shingles per day. The terrible fires of 1871 so far destroyed the timber upon which the mills relied, that by 1880 they were practically abandoned, after enabling shipments of an average of 3,000,000 feet of lumber and 4,000,000 shingles per season since 1866. Earl & Case built a mill at this place about 1860, with capacity for manufacturing 35,000 feet of lumber and 30,000 shingles, with 10,000 lath daily. This mill was known as the "Baptist" mill after 1881, in which year it was leased to William Baptist, who had followed lumbering since his advent at Green Bay in 1855. The stock for this mill was for many years towed in rafts from the Peshtigo river.

For a number of years the stave trade flourished at Green Bay, the shipments of pipes and hogshead staves to foreign markets reaching as high as 6,000,000 yearly. L. M. Marshall in 1853 built a shingle mill on Duck creek, and in 1875 in connection with Abram Taylor a saw and shingle mill at Chelsea. Of Daniel Whitney, the pioneer trader and owner of saw mills during the earlier days of this section, considerable mention has been made elsewhere.

Anson Eldred (now Anson Eldred & Son) has long been one of the most prominent lumbermen of this section, with mills at Fort Howard, Oconto, Stiles and Little Suamico. Mr. Eldred, who began lumbering at Detroit, Mich., about 1840, removed to Wisconsin in 1842, and opened a lumber yard at Milwaukee. In 1852 he built a water power saw mill at Stiles, Wisconsin, which he operated until 1876, cutting about 20,000,000 feet of lumber and 8,000,000 shingles annually from a tract of 40,000 acres controlled by him. In 1873 he secured control of 50,000 acres of pine lands and a steam mill at Little Suamico, and in 1876 on the discontinuance of the Stiles mill, purchased a steam mill at Oconto, which had been built by Mix & Orr in 1869. This mill had capacity for cutting 20,000,000 feet of lumber, 8,000,000 shingles and 4,000,000 lath, while the mill at Suamico was rated at 7,000,000 feet of lumber, 10,000,000 shingles, and 2,500,000 lath. In 1879 he erected a large planing mill and box factory at Fort Howard, with capacity for dressing 125,000 feet of lumber per day, the box factory consuming about 6,000,000 feet annually. Mr. Eldred was one of the earliest lumbermen to avail of the facilities of rail transportation direct to the retailer of the west.

At Wrightstown in Brown county, F. N. Wright & Co. erected a steam saw mill about 1863, which was burned in 1865. At Greenleaf, C. W. Day built a steam mill in 1860, which was remodeled and improved in 1880 to a capacity of 25,000 feet of lumber, 40,000 shingles, 8,000 lath and 5,000 staves per day. Otis Day, who in 1850 went to Greenleaf and for two years made shingles by hand, in 1852 built a small saw and shingle mill, which formed the nucleus of the business of his son C. W. Day, with whom he was interested in the building of the steam mill mentioned above. David Davidson of Suamico township in Brown county built a saw mill near his residence about 1855, which he operated on a small scale for several years, as did M. E. Tremble, who settled at Big Suamico in 1864, and whose mill by 1880 was credited with a cut of 5,000,000 feet of lumber and 4,387,000 shingles. Other operators reporting in that year, were Charles Gross, 250,000 feet of lumber, 1,300,000 shingles; A. C. Conn Co., 3,250,000 lumber and 2,809,000 shingles; and Anson Eldred & Co., 6,000,000 lumber.

Capt. Daniel Curtis, a gallant soldier of the army, was charged some time previous to 1822, with the oversight of a fatigue party for the purpose of procuring the manufacture of lumber at Fort Howard or its neighborhood, and attempted the construction of a mill for the government, on the Little Kaukauna, ten miles up, and west of Fox river, but before completing the dam, was recalled by his superior officers, and the work was abandoned. As elsewhere noted, Jacob Franks, a Canadian who crossed to Wisconsin soon after the revolutionary war, built a small mill in 1805 at a point on Devil river four miles from the Fox. This mill afterward passed into the hands of John Law.

In Strong's History of Wisconsin, page 80, it is stated that "the earliest mill in this section was erected by a Jacob Franks, a blacksmith, about the year 1809. He first built a saw mill on Devil river two or three miles east of Depere, and afterward a grist mill with one run of stones. In 1816 the government caused a saw mill to be built at the Little Kaukauna river."

Daniel Whitney, of whom frequent reference is made in this work, was a native of Gilman, New Hampshire, where he was born in 1795. He arrived at Green Bay in 1819 and established a business in fur buying and trading at "Shantytown." In 1821-2 he was a sutler at Fort Snelling, with several trading posts on the Upper Mississippi, and in the country east to Sault Ste. Marie. Between 1825 and 1830 he fully explored the Upper Wisconsin and built a mill at Plover portage, where he for fifteen years manufactured lumber and rafted it to St. Louis. His name appears in connection with various enterprises from the Green Bay region to the Mississippi river, and in that early day he was a prominent factor in the development of northern Wisconsin.

Smith's History of Wisconsin, published in 1854, in speaking of Col. William S. Hamilton's journey in 1825, from Springfield to Green Bay, with a lot of cattle, says that "after leaving Manitowoc the first signs of civilization which they encountered was a house and saw mill at Duck Creek about four miles from Green Bay," which, the historian surmises, "was probably the Frank (later 'Ellis') mill at Devil river. rather than the one built by Ebenezer Childs for David Whitney about 1821," although the dates do not correspond, our account of the advent of Mr. Childs elsewhere given, speaking only of a store erected in that year, the lumber for which was whipsawed, the permit for a saw mill not being obtained from the government until 1827. Whitney in 1831 obtained also a permit from the war department to erect a mill and cut timber on the Indian lands of the Wisconsin river, and built his mill at Whitney's rapids below Point Bausse in 1831-2, as elsewhere noted.

So late as 1845 surveying parties were engaged in Green Bay upon topographic and hydrographic work. The country was even at this date a wilderness in possession of the Indians. There was a small village at Fort Howard near the mouth of Fox river, and a saw mill on the Menominee. (Vide John H. Forster, Prest. State Historical Society.)

Among the operators of a later day was the S. J. Murphy Lumber Co., organized in 1886, and building a mill at Green Bay containing one circular, one band, and one gang, with a cutting capacity of 20,000,000 feet of lumber and 15,000,000 shingles per year. This mill was burned in 1895, and at once rebuilt with two band saws, having capacity equal to that of the former mill. Mr. S. J. Murphy was a pioneer lumberman of Maine and for many years in Michigan, where his extensive operations have continued to the present time.

Simon J. Murphy, Sr.—The Murphy Lumber Company.—The State of Maine has contributed perhaps a larger proportion of her stalwart lumbermen to the development of the lumber business of the northwest than probably any other of the older lumber sections of the nation, and of these Simon J. Murphy stands as a conspicuous example.

Mr. Murphy was born at Windsor, Maine, in 1815, of which locality his parents had long been residents, his ancestors having settled in America early in the 17th century, taking part in the struggles which made the United States an independent nation. Simon was educated in the common schools of Windsor, and during his earlier years assisted his parents in the work of the farm upon which they resided, until at the age of twenty-five years, having for some years previous found employ in the forests of the Pine Tree State, he in 1840 in connection with Jonathan Eddy formed the firm of Eddy, Murphy & Co., and from 1840 to 1864 was engaged in lumbering on the Penobscot river. In the latter year Mr. Eddy died, and Mr. Murphy having settled up the business of the firm, removed west and settled at Port Huron, Michigan, where, as early as 1852, the company had made investments in pine timber on the Black river of St. Clair county. About 1860, in connection with Sewall Avery, also a Maine lumberman who had settled at Port Huron in 1852 and made investments in pine lands, he formed the firm of Avery & Murphy, and continued the policy adopted as early as 1853, of purchasing large blocks of pine in various portions of the State, including the region tributary to the Muskegon and White rivers in the western portion of the State, and for more than a quarter of a century their operations reached a volume of from 18,000,000 to 20,000,000 feet per annum. About 1874 the firm of Avery & Murphy is noted in the statistics of White Lake, succeeded a year later by that of Heald, Avery & Co., of which Mr. Murphy was the "Co." and of which James H. Pearson and E. E. Crepin were also members. Mr. Crepin was for many years connected with the wholesale yard trade of Chicago, and the firm of Heald, Avery & Co. continued the yard business at that point for about eighteen years. In 1877 Mr. Avery died, and the firm of Heald, Murphy & Crepin was continued, with a reported cut in 1880 of 18,000,000 feet of lumber and 17,000,000 shingles. The business of 1874 and succeeding years was conducted with a mill at White Lake containing two circulars, the cut of which was reported at 8,300,000 feet, and a mill at Maple river containing one mulay and one circular, with a reported cut of 5,000,000 feet. The mill at White Lake was erected in 1850, and at that time was a single mulay mill; the Maple Grove mill was built by the firm in 1856, and by this time the circular had been introduced to the trade, although its capacity as later developed was by no means understood, although Mr. Murphy and his partners were not slow to appreciate the greater advantages to result from its adoption, and with better knowledge of its capabilities, the product of the mills was increased to 14,000,000 feet in 1877, and to 18,000,000 feet of lumber and 17,000,000 shingles in 1880. In 1883 the firm became "Crepin & Murphy Sons," and the mill at White Lake was increased to one circular and two gangs, the mulay being discarded, and the cut of that year was reported at 25,000,000 feet of lumber and 20,000,000 shingles.

After the death of Mr. Avery in 1877, a division of interests took place, and Mr. Murphy's interest being represented by his sons, he turned his face again eastward toward the Saginaw valley, where during the passing years he had conducted large lumbering interests, and in company with Temple E. Dorr purchased the saw mill erected some years before by Dunham & Whipple on the middle ground at Portsmouth (now 7th ward, Bay City), which was operated by Murphy & Dorr until its destruction by fire in 1884. From about 1864 Mr. Murphy was associated in the manufacture of lumber on the Saginaw river with Edwin Eddy, Sewall and Newell Avery, his early associates in business, and under the firm name of Eddy, Avery & Co. operated a saw mill, which at first containing but a single circular, was later increased to two circulars and a gang, with a manufacture increased from 6,000,000 feet yearly to a volume of 30,000,000 feet per year, and this firm continued until the withdrawal of Mr. Murphy in 1878.

In 1886, Mr. Murphy and his sons, Simon J., Jr., Albert M., William H., Frank E., and William Kiernan as superintendent, organized the S. J. Murphy Lumber Co., and erected a saw mill at Green Bay, Wisconsin, containing one circular, one band and one gang, having a cutting capacity of 20,000,000 feet of lumber and 15,000,000 shingles per annum, and in 1889 removed the circular and gang and added two more bands, increasing the capacity of the mill to an average of 100,000 feet per day, or 25,000,000 feet per annum. On September 20, 1895, the mill was destroyed by fire, and less than a month later, on October 7, a second fire occurred in the mill yard, which destroyed 3,000,000 feet of lumber. Nothing daunted by these misfortunes, a new mill was at once erected, which on the 18th of May, 1896, was ready for operation, containing two band saws, and with a cutting capacity of 20,000,000 feet of lumber and 10,000,000 shingles per year. The manufacture of the firm at this point since 1886 has been not far from 200,000,000 feet, with present resources of about 125,000,000 for its future supply.

Taking the various enterprises with which Mr. Murphy has been connected since his advent in the west, it is safe to say that he has been interested in the manufacture of fully a billion and a half of the timber of Michigan and Wisconsin. He may fairly be named among the pioneers of the lumber industry of the northwest, ranking among the heaviest of its manufacturers. He has witnessed what was practically the commencement of the industry, and has been spared to witness not only its development and progress, but as well to see what is practically the end of the vast timber resources in pine forests, which in his earlier operations it was not thought possible to exhaust in many generations.

As a lumberman Mr. Murphy has stood high in the esteem of his fellow citizens, not only as an enterprising operator and intelligent business man, but as a man of the strictest integrity, and as the evening of his day draws on apace, he can but be consoled with the reflection that his has been not only a busy but a useful life, the record of which he may by no means look back upon with regret.

Mr. Murphy was married in September, 1845, to Miss Ann M. Dorr of Bradley, Maine, twelve children being the fruit of the union, of whom five sons and one daughter survive. Of the sons, Albert M., William H., Simon J. and Frank E. are all connected with the business at Green Bay.

Simon Jones Murphy, Jr., is prominent among the active business men of Green Bay. Mr. Murphy was born at Bradley, Penobscot county, Maine, in 1851, and is the son of Simon J. and Ann Montgomery (Dorr) Murphy, the families on both sides being of old New England stock of Irish and English ancestry, settlers at one of the earliest periods of New England history, in the colony of Maine. Simon J. Murphy the elder was for many years a successful lumberman in the state of Maine, where he was associated with Col. Jonathan Eddy in the lumber business, and was later one of the earlier operators in the more enlarged field of Michigan and the Saginaw valley, where he was for many years connected with Newell Avery, forming the firm of Avery & Murphy, who were among the first to appreciate the value of the extensive pine forests of Michigan, and to become purchasers of large tracts of these lands at a time when investors had ample opportunity to select the choicest locations.

The subject of our sketch received his early education in the schools of Bangor, and when at the age of fifteen years his parents removed permanently to Detroit, Mich., he graduated from the high school of the latter city, and in 1871 entered Harvard college preparatory to following the profession of civil engineer, obtaining his degree from the Lawrence Scientific school in 1873. Arrangements had been made for a position with the Northern Pacific railroad for the pursuance of his profession, but the panic of 1873 so far deranged railroad construction throughout the country that he was compelled to abandon his original intentions, and, temporarily at least, to turn his attention to the lumber business, in which he began at the lowest round by driving a team in the lumber camps of his father, later taking a more responsible position in the office at Bay City, where the mills of his father were located. The winter of 1874-5 he spent in the woods as a partner, having interest in logging operations, and the following summer was intrusted with the superintendency of the saw mill, and followed this routine during the following seasons until 1878, when he went to Montague, Michigan, as superintendent of the mills of Crepin, Murphy & Sons (with which his father was formerly connected), remaining until the exhaustion of the timber supply at that point. In 1877 the firm of Avery & Murphy subsequent to the death of Mr. Avery was merged into the firm of Murphy & Dorr, our subject becoming connected with the new house, and found that his practical experience in the woods and mills was of the greatest benefit in his mastering of the details of a general lumber business, and the lessons of those earlier days have proved the secret of that success which has attended his later and more extended operations.

With an increased scarcity of timber in Michigan, the firm sought more enlarged fields, and purchased large tracts of pine lands in Wisconsin, the young man going thither to take charge of and operate them. Under his supervision a large mill was erected at Green Bay, containing all of the latest and most approved devices for the manufacture of lumber, including circulars (afterward superseded by bands), gangs, edgers, trimmers and cut-off saws, with live rolls, steam niggers, and in short every device which would increase the production at a reduction of expense, and the mill has long borne the name of being one of the best in the manufacturing districts of the west, a large planing mill being operated in connection with the business. In 1888 a destructive fire wiped out a goodly portion of this valuable plant,

A C Merryman

which was immediately restored with still more modern appliances. This operation under the name of the Murphy Lumber Company, the venerable Simon J. Murphy, Sr., now more than eighty years of age, and residing at Detroit, Michigan, being president, has remained under the supervision and management of his sons, who are directors of the company. Although burdened with the responsibilities of this large business, which includes not only the manufacture from the log, but the finer manipulation of the planing mill and the sale and shipment of the product, Simon J. Murphy, Jr., takes an active part in other enterprises involving the growth and progress of Green Bay, being one of the founders of the Thomas Machine Works of that city, which has recently been merged into the American Wood-Working Co. of America.

He has been president of the Green Bay Business Men's Association, which has done much for the advancement of the interests of the city, while he has found time to investigate and secure large tracts of pine lands on the Peshtigo river, and in other sections of the state of Wisconsin. An ardent Republican, he has taken an active part in the politics of the State, and is at the present time an honored member of the governor's staff, or military family, holding the title of colonel. Mr. Murphy has been and is of no less conspicuity in social and fraternal circles. While known as a fearless, outspoken man who despises hypocrisy and sham, or deceit in any form, his genial manners and friendly bearing have won the confidence and esteem of all who are brought in contact with him in business or social intercourse. Prominent in Masonic circles, he is a member of Wisconsin Consistory 32d degree Masons, Past Eminent Commander of Palestine Commandery No. 20, K. T., of Green Bay, and has filled important offices in the Grand Commandery of Wisconsin, being at this time Grand Generalissimo. He is also a member of Tripoli Temple Mystic Shrine of Milwaukee, and Past Exalted Ruler of the Green Bay Lodge of the Order of Elks. In religious views a Universalist, he is liberal in view and tolerant of the opinions of others who may differ with him, if it be that they are honest in their opinions. As a type of the younger generation of lumbermen, Mr. Murphy may well be characterized as a shining example of industry, enterprise, probity of character, and of those good qualities which are calculated to make for individual and national advancement. Mr. Murphy was in 1877 married to Miss Helen Bogardus Platt, daughter of James Platt, Esq., of Boston, of which city she is a native, and where she was educated.

CHAPTER XXVI.

OCONTO COUNTY.—SHAWANO COUNTY.—WAUSHARA COUNTY.—MANITOWOC COUNTY.

As elsewhere stated, the first saw mill in Oconto county was built in 1825 by Judge John P. Arndt, two miles from the mouth of the Pensaukee river. It was of course what would now be considered an apology for a saw mill, but answered all the purposes of the day and place. The privilege of building it was obtained from the Menominee Indians upon a contract to pay them lumber of a value of $15 per year, and all the boards they might require for coffins, which was but a small number.

In 1835-6 George Langden, George Ehrie and George Lerwich built a dam at Oconto, which together with the mills erected by them, were soon after swept away by a flood, when they sold their claim to Capt. David Jones (see Peshtigo) who in 1847 built another mill and dam, which was swept away in 1859, and rebuilt during the early summer, continuing until 1881, when this also was washed away. In 1856 Norton & Co. built a mill which will be mentioned later. Jacob Spies built a mill in 1850, and in 1859 Bailey & Coull started a mill, late in the fall. In 1860 it was estimated that there was the goodly sum of $1,400,000 invested in the saw mill industry of the county, which included investments in pine lands. Andreas in his History of Wisconsin asserts that in that year there were 321 saws running at Oconto and 106 saws at Stiles, which must, if true, have included a number of gangs, and a number of mills of which this historian has been unable to learn, and which have been forgotten by the older operators now living.

Sometime between 1836 and 1840 a small mill was built on the Oconto river at Oconto Falls by a man named Hogaboom, and some years later a man named Hubbell built a mill on the opposite side of the dam at this point. In 1856 Hugh Jones built a steam saw mill about a mile further up the river. In the same year a couple of young men whose names are unknown to the historian, secured a plat of timber on the river and contracted with the firm of Norton, Durand & Northrop, who were then building their mill at Oconto, to saw their logs, which enabled that firm to supplement their own cut, and to produce nearly two million feet during that season, with the one circular and two gangs which formed the equipment of their mill, as elsewhere related.

The mill of Morrill Bros., which later formed the nucleus of the present Oconto Lumber Company, was built about this time, as has already been described.

Another mill was erected about this time by George Smith, under advances for that purpose made by James Ludington, which subsequently passed into the hands of Anson Eldred.

An interesting episode in the life of William Farnsworth, the old pioneer of this section, occurred soon after he decided to settle in the heart of the Menominee country. He was one day visited by a large delegation of Indian chiefs, who informed him that if he did not get out of their country at once, they would seize his stores as a lawful prize, and resistance would cost him his life. There were from fifteen to twenty of these stalwart Indians in his little shanty, while with him was but one white man, who was so terrified by the threats, that he could not be relied upon for any assistance if force became necessary to decide the contest. Farnsworth coolly closed the door and placed a keg of powder in the center of the room and placed upon it the stump of a burning candle, and turning to the wondering savages told them that he recognized them as braves among their tribe, but that he also was a brave of the white men, and if he was to sacrifice his life and property they would all have to go too, and that no truly brave man feared death; the taunt and menace were effective, and after waiting for the candle to burn quite too near to the powder to be comfortable, they concluded that he was too brave a man to be molested, and asked him to blow out the candle and they would make him no further trouble.

The mill of the Oconto Company was built in 1856, by Morrill Brothers of New Haven, Conn., who becoming embarrassed in the panic of 1857, were unable to meet a mortgage for $10,000 held by L. St. Ores, who notified the holders in the east of a second mortgage, of his intention to foreclose, and they paying no attention to a second notice, Mr. St. Ores offered the property at public sale and it was bid in by George Farnsworth for account of St. Ores at $3,250. This gentleman then sold a half interest to Farnsworth for $1,650, taking his note for the amount. St. Ores later desiring to go to California, told Farnsworth that if he would find a purchaser for his (St. Ores') half at $4,000, he would cancel the note for $1,650. This Mr. Farnsworth accomplished, and sale was made to John N. Sedam, and the firm of Farnsworth & Sedam was organized and operated the mill for several years, when Farnsworth bought the Sedam interest for $20,000 and at once sold it to Nathan Mears, Eli Bates and James C. Brooks for $28,000, and the firm of Farnsworth, Mears & Co. was established. In 1872 a large planing mill was added to the plant, and various improvements were added from time to time to the mill, until in 1878, when the assets of the company having reached the sum of $250,000, the "Oconto Lumber Co." was incorporated, the capital of which was later increased to $1,000,000, and the mill capacity increased to 175,000 feet of lumber and 130,000 shingles per day. In 1881-2 the company erected a large mill at Big Bay de Noquet, with capacity for the manufacture of 25,000,000 feet of lumber yearly. Of these companies George Farnsworth was president and general manager until in 1885, when he was succeeded by James C. Brooks, who had for many years been secretary, Nathan Mears being vice-president until his death in 1896. The Oconto Company organized another corporation known by the same name, for the manufacture of barrels and boxes at Chicago, and with ownership of the "Thompson" barrel patent for making "veneer" barrels, produce about 1,500 barrels per day. The company in its operations has developed two large farms which supply its hundreds of head of stock with grain and pasturage, thus aiding in the development of the agricultural resources of the adjoining country. The original mill operated two circulars and a gang, but of late years these have been thrown out, and the mill has operated two large bands and a band resaw, the latter increasing the cut to the extent of 15,000 feet each tour, with but two additional men.

George Farnsworth.—One of the earliest among western lumbermen, and one not only possessing in the highest degree the respect and confidence of his contemporaries a full half-century, but intimately connected with the development of the forest resources of Michigan and Wisconsin, is George Farnsworth, president for many years and until 1886 of the Oconto and Bay de Noquet Lumber Company, and a gentleman whose life's history is not only interesting, but instructive, in its lessons of honesty and integrity, combined with pluck and perseverance in connection with the difficulties experienced by the lumbermen of the earlier period. Mr. Farnsworth is descended from an English branch of the sturdy and aggressive Anglo-Saxon race, which has been predominant in spreading the influence of civilization over the face of the earth, his grandfather having been a native of England and a commodore in the English navy about the time of the revolt of the colonies, while at a later day his son, the father of the subject of this sketch, showed conspicuous talent in the art of war and the genius to command.

The father, James Farnsworth, was born in New Hampshire in 1775, and was married January 2, 1812, to Miss Joanna Keith, a native of St. Albans, Vermont, who became the mother of George Farnsworth. She was born in 1790 and died in 1864. Her ancestry also seem to have been prominent in military and political as well as social circles in their native Scotland as well as in Vermont, so that Mr. Farnsworth comes from a people who from a social and professional standpoint are renowned for aggressive fighting qualities, combined with sterling honesty and a high order of native ability and character. His father was conspicuous at Fairfax, Vermont, as a collector of historic direct tax levied after the war of 1812, and later was a brigadier-general of militia, being in command about the last time his brigade was called out in 1832. He was a general merchant at Fairfax for many years, and was engaged in lumbering and rafting spars and square timber from Lake Champlain via the Sorel river and the St. Lawrence, to a market at Montreal and Quebec. In those pursuits he accumulated a fine fortune, but lost it by reason of heavy indorsements of paper for friends who were unable to meet it, and failed in business, dragging their indorser with them. He lived an active and useful life, and passed away at a ripe old age at Madrid, New York, whither the family had moved in 1837.

Of his family of seven children but two are now living, Caroline, widow of Bradley Barlow, of St. Albans, Vermont, and George, who was born at Fairfax, Franklin county, Vermont, May 22, 1825. George was thrown upon his own resources at an early age in such wise as to develop those sterling qualities which have been manifest through life. Leaving school when but twelve years of age, he had no later school experience except about six months at Potsdam, New York, where he went when fourteen years of age. At the age of thirteen he entered the store of Hickock & Catlin at Burlington, Vermont, where he served for a year. In the spring of 1840, at the age of fifteen he came west to Racine, Wisconsin, and meeting a young man of his own age named Deming Hanks, the two walked the entire distance to Chicago, arriving there footsore and weary and with but $3 in money between them. The boys secured accommodations for the night at the old Sauganish hotel, corner of Lake and Market streets, and after breakfast next morning, finding that the bill was just three dollars, paid out their last cent, and with resolute hearts set out in quest of work. By noon young Hanks had secured a place in the drug store of a friend of his, but George Farnsworth was less fortunate, and at night-fall returned to the drug store to sleep with his friend. Having heard that a boy was wanted at a place called Grand de Tour near Dixon on the Rock river, he the next day borrowed five dollars from young Hansen (who borrowed it from his employer) and walked out to Grand de Tour, a distance of nearly 100 miles, sleeping the first night in a vacant log cabin, around which the wolves howled dismally until daybreak, but less fortunate the second night, which was passed on the bare ground. He reached his destination on the third day only to meet with disappointment, as a boy had just been hired. This was a sad blow to the boy's hopes, but it did not discourage him, rather did it develop the pluck and persistence which has been a marked feature of his life. He was permitted to remain with the man for a few days until his feet were in better condition for travel, when he started for Southport, now the thriving city of Kenosha, where he succeeded in obtaining employ in the store of Hale, Lee & Lay, where he remained about a year. His father dying about this time, young Farnsworth returned to the east, and saw his mother and the family safely settled with an uncle at Shelton, Vermont, and leaving with them all his money except $15, he walked thirty miles to Burlington, thence worked his passage to Whitehall and Albany, and thence by assisting the cook on a canal boat to Buffalo, obtaining an occasional shilling for service rendered passengers, until on his arrival at Buffalo he found that his original $15 had increased to $20, so carefully had he husbanded his original store and subsequent earnings. From Buffalo he took dock passage with Captain Blake of the steamer Michigan for Racine, and upon arriving there secured a job of digging post holes for fencing in the small lumber yard of a Mr. Lewis. He was but a light stripling of a boy, utterly unsuited for such hard work, and on the second day Mr. Lewis, who was a kind-hearted man, placed him in his store to keep books and assist in the lumber yard, and found him so useful that he retained him thus for a year. In the meantime young Farnsworth did not know that he was to receive anything more than his board. At the close of the year his employer asked him why he did not buy new clothes to replace those now almost worn out, and on receiving the reply "I have no money," Mr. Lewis turned to the books and placed to the boy's credit the munificent sum of $600, proving himself a veritable friend and an appreciative employer. These were trying experiences for one so young, but they were the supreme test of his resources and character.

Soon after this young Farnsworth was solicited to form a partnership with Horatio Monroe, a young man of about his own age, who was desirous of engaging in the lumber business, but upon stating that he had no capital the father of young Monroe bought out the Lewis yard for $4,000 and loaned young Farnsworth $2,000, notwithstanding his protest that not being of age he could give no security for the loan. But the elder Monroe was willing to trust the boy, whom he had formed a high opinion of, and whom he desired as a partner for his son, and the young men took possession of the yard. Within six months they had cleared $4,000, and young Monroe wishing to engage in other business, they sold out, and Mr. Farnsworth tendered back the $2,000 borrowed of Mr. Monroe, Sr., who insisted on his retaining it for a longer period. Such was the confidence begotten by industry and energy. Pluck and honesty had won their due recognition.

Young Farnsworth in 1844 went to Muskegon, Michigan, and leased a water mill property at the outlet of Bear lake into Muskegon lake, for one year, paying therefor $2,000 cash, and giving his notes for $2,000. In the year he managed to clear $7,000, and began to search for a location where he could build and own a mill, and after footing it from Muskegon to Grand river and north on the east shore of Lake Michigan, he finally selected a site at the mouth of the Pere Marquette river, and entered the government lands on both sides of the river which were then densely covered with pine, and erected a steam saw mill containing two mulay saws and one siding machine (then very popular). This he operated for several years, selling his product in Chicago, sometimes as low as $5 per thousand feet. In this he became involved to an extent from which he could not recover, and the mill passed into the hands of George W. Ford and H. S. Durand, from whom it passed to Loomis & Ludington, being of late years the mill of the Pere Marquette Lumber Co. Mr. Farnsworth worked for the new owners for a year, and finding himself hopelessly involved, with an income insufficient to supply his necessary living expenses, he finally quitclaimed all his rights for $1,000, and with a load of $10,000 of unsatisfied indebtedness began life anew, but with undaunted courage and firm determination to clear off his indebtedness and reach the pinnacle of his early hopes. Crossing the lake to Janesville he clerked for a time in a store, but soon realized that this was but a slow and uncertain method of attaining his hopes. With the confidence of a born speculator, he contracted with a stock broker for 300 head of hogs, which in about seventy days was increased to 6,000 head, upon which he cleared $7,000, which was promptly invested in pine lands on the Peshtigo and Menominee rivers, selected after a careful personal examination. In 1856 R. M. Norton, H. S. Durand and others of Racine employed Mr. Farnsworth to take charge of the building of a large mill property at Oconto, Wisconsin, which he managed for some time successfully, and in 1857 was on the point of purchasing an interest when they, contrary to his advice, made a poor investment, and the panic of the fall of that year brought heavy losses, attesting the wisdom of his refusal to consummate the purchase. In 1858, however, a mill at Oconto, which had cost about $25,000, was sold under a mortgage, and bought in for a Mr. L. St. Ores for the small sum of $3,250. The purchaser then sold a one-half interest to Mr. Farnsworth for $1,625 on his note for that sum, and the firm of Farnsworth & St. Ores began operating it. They were successful, but Mr. St. Ores taking the California fever, told his partner that if he would secure a purchaser for his interest at $4,000 he would cancel the note for $1,625. This Mr. Farnsworth succeeded in doing, and the firm of Farnsworth & Sedam (John P.) was organized. The business flourished exceedingly, and after several years Mr. Farnsworth purchased his partner's half interest for $20,000, and immediately sold it to Nathan Mears, Eli Bates and James C. Brooks for $28,000, whereupon the firm became Farnsworth, Mears & Co. A large business was done under this name until the assets reached the sum of $250,000, at which time the "Oconto Company" was incorporated, the capital being subsequently increased to $1,000,000, Mr. Farnsworth being elected first president and holding the office until 1886. The enormous growth of the business, which has since its organization steadily operated with an annual cut of about 50,000,000 feet of lumber and 15,000,000 shingles, rendered it advisable to divide it somewhat, and the Bay de Noquet Company was formed, with Mr. Farnsworth as its president also. This company, located at Nahma in the upper peninsula, has for many years reported a cut of 25,000,000 feet. These mills have a remaining supply of pine equal to about two years' stock, supplemented by 100,000,000 feet of hemlock near Oconto, and an equal amount tributary to Nahma, which will be available when the pine shall fail.

Still another company was organized under the name of "The Oconto Company" for the manufacture of boxes and barrels in Chicago, making a specialty of the "Thompson" patent barrel, the product being about 1,500 barrels per day.

Having reaped a comfortable fortune after the vicissitudes of a long and busy life, Mr. Farnsworth in 1886 decided to let the heavier burdens of business fall on younger shoulders, and while retaining his controlling interest in the now immense business, which had originally cost him nothing, and in which the original $28,000 of purchase money comprised the entire investment of his partners, Mr. Farnsworth concluded to take life easier and to see something of the outside world. He has spent much time in foreign countries, his practical mind well fitting him to appreciate and to form correct opinions as to points of predominance in the social and mechanical world of Europe, as well as in America. Probably so chequered a career, with its prosperities and adversities, its successes and its failures, its youth of hardship and its old age of opulence, could be open to none other than a denizen of a new country like our own, but the lesson of the boy of thirteen starting out into the wilderness to earn his living, the long and weary tramp in the determination to find work, the faithful service with no expectation of compensation, the pluck and perseverance which pushed aside the obstacles which met his pathway in swollen streams as well as in solitary tramps through the forest, or on the shores of the lake, the pack on the back and compass in hand, with which returning good fortune led to forest research in the selecting of valuable timber lands, and the final recognition of the timely venture which from nothing has developed a grand fortune, are all but evidence of an honesty of purpose, an integrity of life and a persistency of effort worthy the emulation of every young man who may read this sketch, and who may learn a lesson of wisdom therefrom. Mr. Farnsworth is probably the oldest living shipper of lumber to the Chicago market, his first shipment having been in 1845 from the mills at Muskegon with which he was then connected, and during his nearly three-score years' connection with the lumber trade, has seen the vast and supposedly inexhaustible forests of the northwest decimated almost to the point of extinction, so far as the grand forests of pine were concerned.

The mill of Holt & Balcom (now Holt Lumber Co.) has an interesting history. In 1856, R. M. Norton, H. S. Durand and others of Racine, Wis., employed George Farnsworth to take charge of the erection of a mill at Oconto. The mill was completed during that year and operated successfully for some time, cutting some 3,000,000 feet during the first year, and Mr. Farnsworth was on the point of purchasing an interest, when, contrary to his advice, a poor investment was decided upon by the partners, and he withdrew from the connection. The panic of 1857 sadly crippled the firm, and the title of the property passed into the hands of their creditors, by an arrangement with whom the firm operated it for some years, when it went into the hands of A. C. Calkins, with whom soon after Uri Balcom became associated, and the firm of Balcom & Calkins operated until 1863, when Devillo R. Holt became a partner. In 1865 Mr. Calkins sold out to his partners, and the firm of Holt & Balcom continued until 1872, when James C. King was taken into the partnership, and the firm of Holt, Balcom & King operated until 1874 when Mr. King retiring, the firm of Holt & Balcom continued until the death of Mr. Balcom in 1893, since which time Mr. Holt's sons have been connected and the business has been incorporated as the "Holt Lumber Company." This mill was originally a one circular and two gang mill, but with constantly added improvements, it by 1880 reported a cut of 125,000 feet per day, and a season's production of 25,000,000 feet. This mill has since adopted the latest improvements in mill machinery, including band and gang saws, edgers, trimmers, cut-off saws, live rolls, etc., etc., while the former methods of shipment by vessel have largely been changed to the drying, planing and dressing of lumber, with its shipment by rail direct to the yards of the retailer in the west. The timber accumulations of the firm, as in the case of the Oconto Company, have run into the hundreds of thousands of acres, it being the policy of all the larger establishments to secure as large an amount of timber for future use as may be available to them.

Devillo R. Holt was born at Watertown, N. Y., December 27, 1823, and when twenty years of age came west, reaching Chicago in the fall of 1847, and for five years thereafter was engaged in the retail lumber trade in that city. His first operations as a manufacturer of lumber were in connection with Richard Mason at Little Bay De Noquet. Their mill at this point did a flourishing business for a number of years; Mr. Holt sold out to his partner in 1858.

In 1863 the firm of Holt & Balcom was formed, continuing until 1887, and this firm acquired large tracts of timber land, and a saw mill at and near Oconto, Wis., which was operated until the dissolution of the partnership in 1887, and were succeeded by the Holt Lumber Company. The Holt Lumber Company is one of the largest and best known in the northwest, and with its founder and his sons, commands the confidence and respect of the trade.

S. A. Coleman built a mill of 40,000 feet capacity, together with 75,000 shingles and 15,000 lath daily, in 1871. The mill of Jacob Spies was built by David Jones in 1850, and was located east of the city on the river; its capacity was about the same as that of the Coleman mill; it was purchased by Mr. Spies in 1870, and was for many years operated by him.

Anson Eldred was one of the pioneer lumbermen of this section. His mill was built in 1857 by George Smith, and soon after operated by Mix & Orr, who ran it but a few years before it came into Mr. Eldred's possession, and under him it was enlarged and improved to be one of the best mills in this section. It was burned in 1881. Mr. Eldred was associated with Mr. Balcom as early as 1860, in mills (water) both at Oconto and Stiles in the same county, and this latter mill, enlarged and improved, continues to be operated by A. Eldred & Sons, and is one of the most important operations in this neighborhood. After the destruction of the Oconto mill, Mr. Eldred erected a large and thoroughly modern mill at Fort Howard; the mills of this company reported a cut of 22,000,000 feet of lumber in 1880, with 10,000,000 shingles.

The mill of F. B. Gardner at Pensaukee, having a sawing capacity of 90,000 feet per day, was for many years a leading factor in the lumber production of Oconto county: it shared the fate of many other mills in the great fire of 1871, but was rebuilt and operated until about 1884, when the timber resources failed, and this section became more noted for its production of cedar and hemlock posts and ties than for its lumber production. Conn & Gardner's mill at Little Suamico was of about 75,000 daily capacity for many years of its operation, while the Gross mill was of smaller calibre. James and T. W. Christie operated a mill at Oconto Falls for several years subsequent to 1847, in which William Brunquest was a partner in 1850. In 1860 Mr. Brunquest bought the Jones water mill, which, when carried away by a flood in 1870, he rebuilt, and ran it until 1874, when it was purchased by McDonald & Billings, who operated it for a number of years. John Balk so early as, or before, 1856 had a water mill at Oconto Falls, which is still operated by his sons in a small way. The Oconto falls were in solid rock, with a perpendicular fall of about twenty feet, and presenting a serious obstacle to the running of logs, George Farnsworth at an early day, blasted out a channel or chute, which greatly facilitated the log driving of the stream.

The cut of Oconto and its surrounding country was in 1880 reported at 87,000,000 feet of lumber and 36,981,000 shingles, and in detail comprised the cuts of Charles Grosse at Little Suamico, 250,000 feet of lumber and 1,300,000 shingles; A. C. Conn Co., 3,250,000 feet of lumber and 2,809,000 shingles; Anson Eldred & Co., 22,000,000 lumber, 8,544,000 shingles; Gardner & Baptist, Pensaukee, 8,494,000 lumber, 9,828,000 shingles; Oconto Company, 20,000,000 lumber, 13,000,000 shingles; Jacob Spies, 8,000,000 lumber, 1,500,000 shingles; Holt & Balcom, 20,000,000 lumber; Coleman & Essen, 5,000,000 lumber. The cut of 1896 was reported at 46,823,000 feet of lumber and 8,000,000 shingles, of which amount the Holt Lumber Co. reported 21,323,527 feet of lumber and 4,800,000 shingles; the Oconto Company, 22,000,000 feet of lumber; and the Anson Eldred Company at Stiles with 3,500,000 feet of lumber, make up the reported production, and these companies now hold the bulk of the remaining resources of pine timber, with but two or three years' stock for their mills, but with large supplies of hemlock and hardwood available for many years of manufacture.

SHAWANO COUNTY.

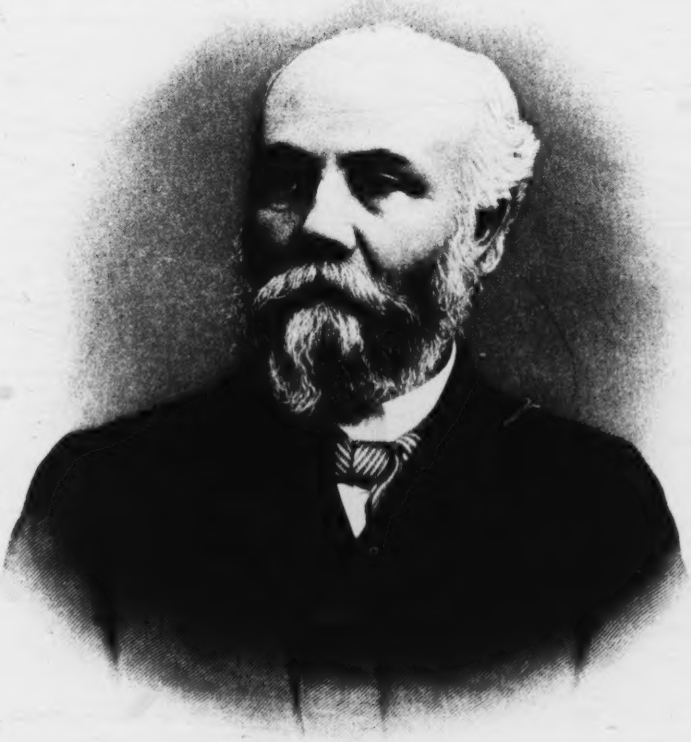
Shawano county attracted the attention of lumbermen as early as 1843, when the mill of Samuel Farnsworth was built by Charles Westcott. This mill was located at Shawano on the Wolf river, a stream which has been a most potent factor from that day, in the log supply of the mills at Oshkosh and other points on Lake Winnebago. Mr. Wolcott built a dam, and at this place created the first water power improvement on the Wolf river. In the fall of 1843 F. B. Moore of Fond du Lac purchased a two-thirds interest in the mill and general store connected with it. Philetus Sawyer, later for many years United States senator from Wisconsin, George Andrews, and other lumbermen were at this time seeking timber lands, and were not at all anxious to be interfered with by the incoming settlers, and so late as 1851 used their best endeavors to prevent any logs being cut for running to mills below. A small steamer plying between Lake Winnebago and Shawano village, afforded an excellent means of transportation and travel, where otherwise was to be found an Indian trail or logging road.

The manufacture of lumber has never been looked upon as one of the leading industries of Shawano county, but its log supply to mills at the outlet of the river, have made it noted as one of the most important resources of the lumbermen. The Oconto river touches this county at its northeast corner, and in 1872 the Northwestern Improvement Company built a dam across the river at this point for the sluicing and moving of logs and timber; the work was done by A. Winquist, on whose land the dam was located and one year later he, in company with Charles A. Noyes and O. A. Risum, built a small mill, with a wooden undershot wheel, which was only of benefit to the local settlers. About 1881 Newbold & Livingston built a mill of 12,000,000 feet annual capacity at Whitcomb, and about that date there were the mills of A. J. Fullerton, and C. Schmall at Hartland, and a small mill at Bonduel. A. K. Porter had a mill six miles southeast of Shawano. Lumber has continued to be cut at Shawano up to the present time, the records of production in 1897 mentioning F. C. Webster, with a cut of 250,000 feet of lumber, and 550,000 shingles. The majority of the timber of the county, however, has been sent down the river to supply the mills at Oshkosh. A saw mill of 7,000,000 feet of lumber annual capacity was erected at Angelica in this county in 1871 by J. P. Laird & Co., who also had mills in Pine county, Minnesota. After 1880 the product of this mill rapidly decreased, with the exhaustion of its timber resources.

WAUSHARA COUNTY.

Waushara county was organized in 1851, the first settlers arriving in 1848, previous to which date the Indians held undisputed sway. The Shumway brothers settled at Wautoma in 1850, and finding the neighborhood rich in pine, built a saw mill upon the water power, and christened the settlement "Shumway's Mills" (now Wautoma). At Plainfield Cady & Chamberlain built a saw and grist mill in 1856. The county being inland and watered by no important streams, withal not boasting of a heavy extent of pine forest, has never cut much figure in lumber production, beyond its manufacture of hardwoods, principally for home consumption.

In the history of the Chicago lumber trade, mention is made of a saw mill then building near Manitowoc seen by L. P. Hilliard on his visit to that section in 1836, and known to him as the "Conroe mill." This was built in that year by Jacob W. Conroe, who with Judge Lowe of Green Bay, represented the "Manitowoc Land Company." This mill was located on the rapids and was, like all the early ventures, a sash mill run by water power, and capable of cutting from two to four thousand feet in twelve hours. In 1837 a second mill was erected by Thayer, Rouse & Thompson, near Two Rivers, a few miles to the north; George Conroe also built a mill about this time at Neshota, in the western part of the town of Two Rivers, he as a member of the "Neshota Company" having located a body of about 5,000 acres of land. The panic of 1837 practically stopped work at all these mills except that of Jacob W. Conroe, who continued operating and found market for his lumber at the rising city of Chicago.



Geo. M. Paine

With the return of prosperity to the country, the other mills resumed operations and contributed in no small degree to the well-being of the settlers, who about this time were attracted to this section, their surplus of manufacture being shipped to Chicago, and other mills were soon after added. The government had established a land office at Green Bay in 1834, and the country about Manitowoc being reputed rich in precious metals, as well as in coarser minerals, a boom period was soon entered upon, cities laid out (on paper), and land sold at fabulous prices. The panic of 1837 ended the "boom," and the discovery that precious metals were to be found only in the brains of boom promoters, the flood of settlers was stayed, and but few arrivals were noted until about 1846, while the increasing demand for lumber at Chicago and Milwaukee kept the mills busy. In 1844 Daniel Smith built a mill at Mishicote, and another in 1846. Pierce & Bruce built one at Cooperstown in 1847. In 1850 Ira Clark built a saw and grist mill in the town of Cato. A German colony from Baden settled at Eaton in 1854 and built a saw and grist mill. Ship-building was established at Manitowoc about 1847, when a small vessel, the "Citizen," of but sixty tons burden, was the forerunner of a large number of vessels of all classes probably exceeding one hundred and fifty in number, which have since been constructed from the valuable white oak timber with which this region abounded. Few sections have been more prolific in the manufacture and shipment of cedar in posts, poles and paving timber, together with hemlock railroad ties.

Two Rivers was for many years of considerable importance as a lumber producing point, Robert M. Ebbers and John Lowe of Green Bay having built a small mill in 1836; its size may be inferred from the fact that it required but one man to run it. H. H. Smith, one of the settlers of 1845, became one of the leading operators in mills and general lumbering, and in 1856 organized the New England Manufacturing Co., which started a chair factory. In 1860 the Two Rivers Manufacturing Co. erected a tub and pail factory, which became one of the largest institutions of its kind in the country. A saw mill was erected in the town of Centerville in 1855 by —— Mills, whose sons were in later years prominent citizens and proprietors of flouring and grist mills. Mills were, about 1850, erected at Keil, but of their history we find no record, and the same may be said regarding the numerous towns and settlements of Manitowoc county, nearly all of which for many years numbered a saw mill abong their most important industries, while withal they were of small calibre and largely confined to supplying local wants.

James C. Brooks is president of the Oconto Lumber Company of Oconto, Wisconsin, and also of the Bay de Noquet Lumber Co., of Nahma, Michigan. Mr. Brooks was a native of Massachusetts, having been born at Salem, August 25, 1837, the son of William H. and Sarah (Carter) Brooks, both of whom were natives of the Old Bay State. While their son James C. was yet a child they removed to Cambridge, where they afforded him the advantages of a good education in the public schools, supplemented by those of one of the famous private schools of Boston, of which the young man availed himself with a high appreciation of its value to his future life in leading to that business success to which he naturally looked forward. In 1856, being now nineteen years of age, the young man came west and in Chicago secured employ in the office of Artemus Carter, at that time one of the leading lumber merchants of that city, and determined to make this business the purpose of his commercial life. After remaining with Mr. Carter for two years, during which time he applied his energies to a perfect understanding of the most minute details of the yard trade, he entered the employ of Charles Mears & Company, where his efficiency was so marked that at the end of one year on salary, Mr. Charles Mears retiring, and a reorganization of the firm taking place, he was accorded a partnership in the firm of Mears, Bates & Co., composed of Nathan Mears, Eli Bates and James C. Brooks, and although young in years was recognized as a most energetic and valuable member of the firm, upon whose shoulders fell a high degree of responsibility in the conduct of the extensive and still increasing business of the firm. In 1879, having been for nearly twenty years in active and successful, and at the same time arduous, connection with the firm, and feeling the need of rest, he withdrew from the company and took a trip to Europe, visiting many places of note, and enlarging his knowledge of the world, and no less his appreciation of the institutions and government of his native land. After a year's vacation he returned and having, during the previous years, become a stockholder in the Oconto Lumber Company, organized by his firm for the manufacture of lumber at Oconto, he now became more immediately interested in its operation, and soon found himself called to a high degree of authority in connection with it, and later with the management of the Bay de Noquet Lumber Company, which was but an expansion of the business of the Oconto Company, and of the firm of Mears, Bates & Co. Being younger in years than his associates in these companies, and well equipped in his knowledge of the conditions and requirements to success, it was but natural that in an increasing degree the affairs of these companies should be committed to his management, and on the retirement of Mr. George Farnsworth, who had held the presidency of both companies until 1886, Mr. Brooks was elected his successor, and has since held the presidency of the two companies, whose annual output has been about 50,000,000 feet of lumber, in the production of which from the purchase of timber lands, the cutting and running of logs, the sawing, and shipment and sale of the product, a demand arose for the exercise of just such splendid business abilities as the long experience and close application to details, cultivated by Mr. Brooks throughout his entire career, so well fitted him to exercise.

Mr. Brooks in 1867 was married to Miss Rose Hambleton, a native of Cincinnati, Ohio, and daughter of Samuel T. Hambleton, a prominent man in the steamboat industry of the Ohio river. To them have been born one son and two daughters: Alice H., Edith G., and James H. Mr. Brooks is a gentleman of high social qualities, is a member of the Union League, the Marquette, Union and Athletic clubs, a strong Republican and a warm adherent and friend of Unity church.

Mr. Brooks' history is worthy the study of the young man who would seek success in life. Reaching Chicago in 1856 with but one cent in his pocket, which was used in the purchase of a doughnut, which constituted his first breakfast in the city, he set his face toward achieving a success, which could be realized only by such manifestations of pluck, energy and strict integrity as were the inherent qualities of his life, his duty to himself as well as to his employer demanded the exercise of his best powers and the devotion of all his energies to the advancement of his employer's interests. What wonder that his advancement was rapid and that his success has been most pronounced, not only in the accumulation of a competency, but in reaching an exalted position in the estimation of the social and business world.

Upon the death of Mr. Eli Bates his will revealed many charitable bequests, of which Mr. Brooks was made the dispenser. Principal among these bequests was the sum of $40,000, which Mr. Bates desired should be expended in the erection of a suitable monument in memory of the immortal Lincoln. How well the wishes of Mr. Bates were executed is evidenced by the national renown attaching to the beautiful bronze statue of the martyred president, which graces the southern end of Lincoln park, Chicago, and which is claimed to be the best of its kind in the country, if not in the world, from the standpoint of statue artists. Nothing in the parks of the city attracts greater attention, or excites higher admiration than the life-size statue standing in front of a bronze chair in the midst of a vast forum, holding in his hands the scroll of that world-admired proclamation, which decreed liberty to the captive, and the abolition of slavery in the United States. In the execution of his trust, too high a meed of honor cannot be accorded to Mr. James C. Brooks, for the appropriateness of the design selected by him, and the execution of the work in a manner which will stand the test of ages.

Nathan Mears.—Few men have been more closely identified with the lumber trade of Chicago, and the northwest than Nathan Mears, and it may be added that he is to be numbered among the earlier pioneers in the settlement and development of the central west, coming as he did before the days of railroads, and taking part in the trials and privations experienced by the settlers of southern Michigan in the pioneer days when intercourse between Detroit and the interior of the State was not only by tedious stage coach through a sparsely settled country, but through a region from which the wild beasts had not yet been driven out.

Mr. Mears was born at Billerica, Massachusetts, December 30, 1815, the son of Nathan, Sr., who was a descendant of Robert Mears, whose name appears upon the public records of Billerica as early as 1726. The mother of Nathan Jr. was Lucy, daughter of Nathaniel Livingston, a descendant of John Livingston, a Scotchman, who settled in Massachusetts previous to 1677.

Nathan Mears, Sr., was a merchant and a land owner of Billerica, and a man of great influence in the community, who died in 1828, leaving what was at that time considered an ample fortune. For eight years previous to his death he had filled the office of selectman of the town of Billerica, and was otherwise esteemed one of the leading citizens of the town. His wife died two years previous to his own demise, thus leaving his children orphans. Nathan, the son, was at this time twelve years of age, and a guardian being appointed, he was sent to school at Billerica academy, and subsequently at Westford, until at the age of seventeen he began the business career which has resulted so successfully. His first venture was as a clerk in one of the stores at Lowell, Massachusetts, and a few months later as a clerk in the wholesale and retail dry goods business of Nichols & Leeds, Boston, where he remained for three years. He was now of age and with his two brothers turned his face westward, and found a resting place at Paw Paw, Michigan, where the brothers opened a general store with a stock comprising everything that the few settlers might need or the many Indians still remaining in the country might fancy, and where they were prepared to buy furs, grain or anything which the settlers might have to sell. Paw Paw was 160 miles from Detroit on the stage line which then constituted the only public means of travel, between Detroit and Chicago and the west. All their goods must be transported by wagon and the roads were at certain seasons as bad as a track through the forest could possibly be pictured. Battle Creek was among the nearest prominent settlements, and young Mears becoming acquainted with Miss Ann Elizabeth Gilbert, of Salem, New York, who had been brought west by her parents, who had settled at Battle Creek, found an attraction so irresistible that their marriage took place in 1840, eventuating so happily as to call for its golden anniversary in 1890, at which the vast number of friends who gathered at the spacious mansion on Cass street, Chicago, testified of the esteem which was felt for the now aged couple over whose heads a half-century of married life had brought but bliss.

Nathan bought out his brother's interest in the store at Paw Paw in 1839, and continued the business alone until 1849, when having struggled against the hard times of 1837, supplemented by the panic of 1847, he found it discouraging work, and decided to turn his stock of goods into cattle, and driving his cattle east to New York state, realized enough to pay off all his indebtedness. In 1850 he went to Chicago, whither his star of destiny directed him, and where his brother Charles, who had for twelve years dabbled somewhat in lumber, induced Nathan to join him in the lumber business, and the firm of Charles Mears & Co. was instituted, Charles attending to the manufacture at White Lake, and later at Hamlin and other points on the Michigan shore, and Nathan attending to the business at Chicago. It was but a year or two before the rapid growth of the business demanded more help, and Eli Bates, who had previously been a light-house keeper in Milwaukee, and had on vacating that position, assisted Charles Mears at his lumber yard in that city, was employed to assist, and at a later date, 1853, became a partner. In 1859 the brothers divided their interests, and Nathan associated with him Eli Bates, James C. Brooks and Geo. H. Ambrose, and the firm of Mears, Bates & Co. became not only one of the best known, but heaviest and most reliable lumber firms in the country. In 1865 they became interested with George Farnsworth in a large mill at Oconto, Wisconsin, and the Oconto Lumber Co. being organized, Mr. Mears for many years held the office of vice-president. Upon his advice and in accordance with his keen perception of what the future was to bring forth, the company adopted the policy of acquiring all the pine lands which its increasing profits would enable it to purchase, and it in later years held about 100,000 acres of excellent pine and other lands, from which for many years past, no less than 50,000,000 feet of timber has been cut and manufactured yearly, to supply the immense wholesale trade which for the past years has taken the place of the limited retail yard business of the earlier years. In connection with the mills at Oconto is a large planing mill, which, with excellent railroad facilities, enables the shipment of dressed lumber and mouldings direct from the mills to any part of the country. It was the policy of Mr. Mears, and as well of his associates in business, to secure the best and latest improvement and time-saving machinery, as soon as such improvement was brought to their notice, and the mulay succeeded the gate mill and the gang was soon added. The rotary superseded the upright saw, and the band saw in time found its way into the mill of this enterprising company, the gang edger and the trimmer, steam feed and log turner, endless carriers and labor-saving devices of every sort, were added without regard to cost, and with sole reference to more economical manufacture and a greater saving of timber, so that under the wise direction of the veteran subject of this sketch and his able associates, the cost of manufacture and the waste of timber was reduced to the minimum.

Mr. Mears occupied yards in various portions of the city of Chicago, but was best known in connection with yards at the Kinzie street bridge, on the north pier and at Polk street. As an index to his promptness to act and his quick perceptions of that which is requisite at the moment, it is related of him that in 1866, on receiving a telegram from Oconto stating that the mill had burned, and asking "What shall we do?" it was but a moment's work to dictate the message, "But one thing to do, clear the ruins and prepare to rebuild at once." When the fire of 1871 consumed twelve million feet of lumber for the firm, and while many dealers were wringing their hands over the ruins, Mr. Mears dispatched Mr. George H. Ambrose to Saginaw with instructions to purchase five million feet, and he would send vessels for it, and before the close of navigation an ample stock of such lumber as was required in rebuilding the city was on the docks of Mears, Bates & Co.

At the death of Mr. Bates in 1881, Mr. Charles H. Mears, son of Nathan Mears, became connected with the business, and on the retirement of his father, became the head of the business which is now carried on under the designation of Charles H. Mears & Co., handling from forty to sixty million feet per year.

Mr. Mears' usefulness was not wholly confined to his business endeavors. On the breaking out of the war of the rebellion, Mr. Mears at once took part with those citizens who were endeavoring to assist the government. After the capture of Fort Donaldson, Mr. Mears was sent by citizens who had raised a fund for that purpose, in charge of a force of ship carpenters and calkers numbering one hundren and twenty, whose services were required at Cairo in the repair of the transports and federal gunboats which had been disabled and sent to that place for repairs. The mission was well perfected, and at a minimum of cost to the fund which had been raised by the citizens for that purpose, while the government work was greatly accelerated.

Mr. Mears had his wise forethought and good judgment much to thank for the excellent health which up to the ripe age of 80 he was enabled to enjoy. Unlike too many who could not spare the time to rest and recuperate, and as a consequence break down early in life, Mr. Mears wisely enjoyed the benefits of foreign travel as a relief from business cares, not more for the relaxation it afforded, than as a means of broadening his knowledge of the world, and in 1876, with his good wife made an extensive tour of Europe, visiting the British Isles, France, Germany, Austria, Switzerland, Italy, Algiers, including an extended tour in Spain, visiting all the more famous places of the Old World. His vigorous constitution led him in the winter of 1893 to start upon an extensive trip to California and the Pacific coast. As before remarked, the golden anniversary of the marriage of Mr. and Mrs. Mears occurred in 1890, and was participated in by many fond relations, children, grandchildren and a host of friends, who breathed an earnest prayer for a long continuance in life and health of their honored host and hostess.

The family of Mr. Mears consisted of the son, Charles H., and two daughters, Mrs. Jonathan Slade and Mrs. James R. McKay, the husband of each being recognized among the prominent citizens of Chicago.

Mr. Mears was, from its organization, a prominent and active member of the Unitarian denomination, and was most active in the organization of Unity church, and in securing to it the services of eloquent and widely-known Rev. Robert Collyer, with whom he for many years claimed the warmest reciprocal friendship.

Broad in view, liberal in thought, active in business, and recognized as honest in the purposes of life, the history of Nathan Mears should prove an incentive to noble lives with all who may read these pages. Mr. Mears died December 6, 1896, at Chicago, at the ripe age of 81 years.

Charles H. Mears.—Among the younger lumbermen of Chicago is Charles H. Mears, son of Nathan Mears, and a native of Chicago, albeit one of the most practical and best posted of the city's active business men. He was born in 1851, and was reared and educated both in literature and experience in the lumber trade. He is derived from sterling ancestry, his father, Nathan Mears, having come from the "Old Bay State" to Michigan many years ago, and finally to Chicago in 1850, where, associated with his brother, he built up one of the largest trades and cleanest reputations of any man ever in the city. It was in his yards and mills that Charles H. Mears obtained his first knowledge and practical experience of the lumber business.

When he reached manhood and was on the point of graduating from the schools of the city, the great fire of 1871 destroyed the building ere he could get his diploma, and he at once terminated his educational career and entered the office of his father and went to work. He received a salary for his services and officiated in the capacity of a general office man until 1879, gaining in the meantime a vast amount of practical experience, and investigating in detail the profits to be made in the business. This was a formative period in his industrial life, a period full of activities and methods, of plans to meet competitors of skill and experience, and to widen and swell the volume of trade and therefore to multiply profits.

In 1879 when James C. Brooks retired from the company, his interest was purchased by Charles H. Mears, who thus became a partner in the business for the first time and a sharer in its profits. The business was thus conducted until June, 1881, when the death of Eli Bates, a member of the firm, left Nathan and Charles H. Mears sole proprietors of the concern under the firm name of N. & C. H. Mears.

Since 1873 Charles H. Mears had been the active manager of the large business of the house. He entered into the spirit of the industry at the outset, studied the markets, investigated the sources of supply, was the animating force at the yards and mills and managed all with exceptional executive ability, and attained a success rarely ever reached even by the oldest and shrewdest dealers. He was wise enough to anticipate any business emergency, and skillful enough to pilot all his business ventures to a successful finality. Unquestionably it was largely due to him that the firm made so great a success and built up such a gigantic business.

In 1885 the yards were removed to 249 Cherry avenue and there remained until 1889, when they were established at their present location at the corner of North Branch and Blackhawk streets. It was in 1889 that Nathan Mears, the senior member, and father of Charles H., retired from the firm, after which the business at Chicago was conducted under the name of Charles H. Mears until 1892, when J. W. Slayton, who had been in the employ of the firm since 1885, was admitted as a partner, at which time the style of Charles H. Mears & Company was adopted. During all the changes of name or location Mr. Mears has been at the head of the concern. But all his time and energies have not been restricted to the management of the affairs of this firm. For ten years he has been secretary and treasurer of the Oconto Lumber Company and is at present one of its directors. In guiding the affairs of that company he has exhibited the same ability shown in the management of the business of N. & C. H. Mears. Not content with these duties and responsibilities, he established another yard in 1887 at 111-113 Belmont avenue, and is there engaged in handling immense quantities of sash, doors, blinds, etc.

For eight years past he has resided at the beautiful suburb of Evanston, where he has a happy home. His marriage to Miss Harriet A. Wright, a native of Chicago, and daughter of Andrew J. Wright, a pioneer liveryman of the city, was celebrated November 20, 1884, and by her he has two children, Nathan and Margaret.

Mr. Mears was born on North Wells street, where the Garden City hotel now stands and is a son of Nathan and Elizabeth A. (Gilbert) Mears. The father was a son of Nathan, who was a son of Robert, who settled at Billerica, Massachusetts, previous to 1726, at which date his name first appears upon the public records of the town. The family of Mears early intermarried with the Livingstons, who came to this country prior to 1677, and both families were no doubt of English descent. Both families have left long lines of honorable posterity in the United States. In fact both names may be found in high places, connected with great dignities and distinguished titles.

CHAPTER XXVII.—MARINETTE COUNTY. (SEE ALSO MENOMINEE CO.)

EARLY MILLS.—RAPID DEVELOPMENT.—OUTAGAMIE AND WAUPUN COUNTIES.

REGARDING the first mill in Marinette county (see also Menominee, Mich.) and the early operations of the county, so extended mention has been made in connection with Menominee county, Michigan (the two cities being practically one), as to preclude the necessity of extended mention in this place, while yet a partial recapitulation will not be out of place.

The first mill on the Menominee river was erected by Farnsworth & Brush in 1832-3. The second mill was built by Charles McLeod and John B. Jacobs at Twin Islands in 1841, but the demand for lumber was too limited to make it a profitable investment, the expense attending the shipment and transportation of lumber to market eating up the profits. In 1844 Doctor J. C. Hall built a mill on the Menominee side of the river, higher up the rapids than the Farnsworth & Brush mill had been; this mill was burned in 1856.

The town of Marinette was laid out by the New York Lumber Company in 1856, Isaac Stephenson, Nelson Ludington & Co. and the Menominee River Lumber Company afterward making additions to the plat.

The New York Lumber Company built a mill near the mouth of the river in 1856, but the company failing in 1858 after expending $80,000, the mill was operated for two or three years by various parties until its purchase by Charles and Henry Wells (cousins from Pennsylvania) and a few years later by Jesse Spalding, and H. H. Porter, who organized the Menominee River Lumber Company. The mill was destroyed by fire in 1869 but was at once rebuilt, to become a victim of the great fire which swept over this section in 1871, but being in the hands of men of foresight and enterprise, was at once rebuilt by the company, which now filed articles of incorporation, electing W. D. Houghteling president, and Horace Williston secretary and treasurer. The mill as reconstructed had capacity for the manufacture of 175,000 feet of lumber, 200,000 shingles and 50,000 lath per day, and has since that time been kept fully supplied with the most modern appliances in saw mill machinery.

N. Ludington & Company was organized in 1856-7 by Nelson Ludington, Harrison Ludington and Daniel Wells, Jr., who had been operating at Escanaba since 1851, they having succeeded Sinclair & Wells, who were established at Escanaba as early as 1846.

Escanaba up to 1849 was probably the greatest lumbering point in the northwest, or west of the Hudson river. Mr. Sinclair was an old Maine lumberman, who upon coming west was well equipped from his eastern experience to take a most prominent position in the development of the lumber business in this new field, in which he was for many years esteemed the "greatest" among its lumbermen. He was the builder of the Penobscot boom at Old Town, Maine, and operated it for six years; this boom was and is to-day accounted one of the greatest booms in the country.

In 1858 Isaac Stephenson purchased a one-quarter interest in what became known as the N. Ludington Company of Chicago, and I. Stephenson Co. of Marinette. In 1863 Anthony G. Van Schaick bought a one-eighth interest from Harrison Ludington, and in 1867 A. C. Brown purchased a one-eighth interest from Mr. Stephenson. During 1868 Mr. Stephenson purchased the balance of the Harrison Ludington interest and as well the interest of A. G. Van Schaick, and the company became incorporated under the name of "The N. Ludington Company," and so continues to the present time, and still carries on the vast operations which had their inception as narrated above. The pine land holdings of the company reached as high as 200,000 acres, estimated to cut 1,500,000,000 feet of timber, and the yearly output of lumber from the mill was from 36,000,000 to 40,000,000 feet. They also operated mills at Escanaba with a cutting capacity of 50,000 feet per day, while their shingle manufacture at Marinette equaled an average of 225,000 per day during the sawing season. The company was also largely interested in the Marinette Barge line. (See Menominee.) The mill of this company was erected soon after the organization of the company in 1856, by, as before stated, Nelson and Harrison Ludington (the latter being governor of Wisconsin in 1875-6), and Daniel Wells, Jr., of Milwaukee, and was located on Mission Point. Isaac Stephenson who joined them in 1858, was a practical lumberman, and a no less practical business man, a fact which for many of the more recent years has been recognized through his repeated election by an appreciative constituency to the honorable and responsible position of Representative in the Congress of the nation, and from his first connection with the company in 1858, has been assigned to the management of the business, and upon the death of Mr. Ludington in 1883 he became president, and still continues as the head of the Company. Upon the organization of the N. Ludington Co. in 1868 Nelson Ludington was elected president, A. C. Brown, vice-president, E. B. Rice, secretary, succeeded during Mr. Stephenson's incumbency by Elias Denison.

The Hamilton & Merryman Company was composed of I. K. and W. C. Hamilton and A. C. and R. W. Merryman, the latter subsequently purchasing his brother's interest. This company erected a mill in 1868 and continued operations until 1872, when the business was incorporated and the company has continued operations which have ranked among the largest in the northwest, maintaining a yard at Chicago for the sale of its products. The mill capacity is about 150,000 feet of lumber, 50,000 shingles and 20,000 lath daily.

The H. Witbeck Company occupies the site of the Fred Carney mill which was erected in 1867 by Daniel Wells, Jr., Andrew Stephenson and Louis Gram, the interests of the two last named gentlemen being purchased by Daniel Wells, Jr., and in 1869 the H. Witbeck Co. was incorporated by H. Witbeck, J. H. Witbeck, Daniel Wells, Jr. and Frederick Carney, with Daniel Wells as president, Henry Witbeck, vice-president, and John H. Witbeck, secretary and treasurer, Frederick Carney being the superintendent. With the repeated improvement of its mill to keep pace with the more modern methods of manufacture, the capacity of this mill at the present time is about 175,000 feet per day. The pine land holdings of this company comprise about 90,000 acres.

William McCartney in 1866, built a mill below the site of the Carney mill, which was destroyed by fire in 1871 and rebuilt the following year with capacity for sawing 100,000 feet per day.

R. W. Merryman completed a mill in the fall of 1878, with capacity for cutting 50,000 feet of lumber, 90,000 shingles and 18,000 lath daily.

The Sawyer Goodman Company built its present mill in 1880 with a capacity for the manufacture of 60,000 feet of lumber, 75,000 shingles and 15,000 lath daily. The company incorporated in 1880 with Philetus Sawyer of Oshkosh as president, Edgar P. Sawyer, vice-president, William O. Goodman of Chicago, secretary, and James B. Goodman of Chicago, treasurer.

On the Marinette side of the river a sash and door factory was erected in 1867 by W. Gothard, W. K. White and William Ellis. This was burned in 1870 and the machinery purchased by Eli Wright and James Tweedy. A second fire destroyed the rebuilt mill in 1875, when it was again rebuilt by James Tweedy in 1879.

The wood pulp industry was established by the Marinette Paper Co. in the winter of 1880. The product of this enterprise is wood pulp manufactured from spruce, hemlock and poplar, and starting with a daily production of ten tons of pulp daily, the company increased its facilities until its present production amounts to about sixty tons daily, from small timber unfit for the manufacture of lumber, but of great value in the production of one of the most important industries in connection with the progress of the age, wood pulp having to a great extent superseded all other materials in the manufacture of print and other paper. Spruce pulp was first made at Marinette, Wisconsin, in 1879, by William Patrick. Marinette being so closely connected in its business relations with its sister city of Menominee, the reader is referred to the history of the latter city for more extended reference.

Peshtigo in Marinette county has also for many years been a prominent lumber manufacturing locality. The Peshtigo Lumber and Manufacturing Company was organized in 1856, and was the original of the later well-known Peshtigo Lumber Co. At this time there had been a mill operated for some years on each side of the river, known as the Bailey, Leavenworth and Beebe mills. The Peshtigo Lumber and Manufacturing Company coming into possession of these mills which were but small affairs, tore down the west side mill and in 1859 erected a large mill on its site, which in 1867 was destroyed by fire but was soon after rebuilt. The mill on the east side was enlarged and the old fashioned gate removed to make room for a circular saw, and the mill was fitted not only for the manufacture of lumber and lath, but as well for the manufacture of sash, doors, etc., and a machine shop was included within its walls. This mill was destroyed in the great conflagration which swept over this section in October, 1871, and it was not rebuilt. A larger mill, however, was erected by the Peshtigo Company in 1872 on the west side of the river, with capacity for cutting 100,000 feet per day with 35,000 pieces of lath. The mill is operated by water power. In 1868 the company erected a steam mill at the mouth of the river, which until 1894 ranked as the largest mill on Green Bay, its cutting capacity being 200,000 feet of lumber, 40,000 shingles and 50,000 lath per day, the yearly output being 50,000,000 feet per year. After the war General William E. Strong was elected president; Isaac Stephenson, vice-president; William A. Ellis, secretary, and George C. Hempstead, assistant secretary and treasurer.

Irenus Kittredge Hamilton.—The subject of this sketch was born in the town of Lyme, State of New Hampshire, in the year 1830, on the first of December, of Scotch-Irish descent; his immediate ancestors were stalwart sons of New England. Both the Scotchman and the New Englander are strongly marked in Mr. Hamilton. His paternal grandfather was Dr. Cyrus Hamilton of Lyme, his maternal grandfather, Dr. Jonathan Kittredge of Canterbury, N. H., both well-known physicians in their state. His father was Deacon Irenus Hamilton, whose chief occupation was that of a farmer. He occupied high positions of trust and confidence in his state, and was at one time state senator. The old family homestead was built by Dr. Cyrus Hamilton and is still the greatest ornament of Lyme Plain. Here were born Irenus K. Hamilton, Woodman C., Charles T., Alfred K., and one daughter Mary Esther, who is now the wife of Dr. Henry M. Chase of Lawrence, Mass. Mr. W. C. Hamilton resides in Fond du Lac, Wisconsin, and has been associated with his elder brother for many years. Charles T. died at the age of seventeen. Mr. A. K. Hamilton is a resident of Milwaukee, Wisconsin, and is well known in business and social circles.

In October, 1853, Mr. Hamilton was married to Miss Mary Louisa Waterbury of Brooklyn, N. Y. To them were given two daughters, Amy and Louise, and two sons, Nathaniel W. and Irenus K., Jr. His eldest daughter is now the wife of Mr. R. J. O. Hunter; his youngest daughter is Mrs. William Waller, both of this city. Nathaniel W. married Miss Harriet Chase of Chicago, where he resides. The youngest

J. K. Hamilton

child, Irenus K. Jr., married Miss Alice Allen of Hartford, Conn., and also lives in Chicago. Mr. Hamilton's wife died in 1886 and in 1889 he married her sister Mrs. Charlotte L. Williamson of Boston, Mass., who has one daughter Caroline L., now the wife of Dr. Frank Hugh Montgomery of Chicago.

Mr. Hamilton's education was received at the public schools of Lyme and at St. Johnsbury Academy, Vermont. It was in the home life and at school that Mr. Irenus K. Hamilton and his brothers learned to work, and to lay the foundation of those habits of industry for which they have been noted in all their subsequent career. Then "boys were made for work and not for play," and the lad of the present generation would think he was having anything but an easy time if brought up in a similar manner.

Immediately on the completion of his course at school, Mr. Hamilton began his business training and found employment in a general store at St. Johnsbury. The same thoroughness which had characterized his home and school tasks was carried into his mercantile life. This soon attracted the attention of Gov. Fairbanks, then at the head of the great scale manufactory of E. & T. Fairbanks & Co. who offered him the position of bookkeeper in their New York branch. At the end of a year and a half, the manager of the New York house, Mr. Charles Fairbanks, was obliged to go to Europe on account of his health. His position was offered to Mr. Hamilton, who filled it to the entire satisfaction of his employers for the next eighteen months, at the end of which time Mr. Fairbanks returned. It was during this period that Mr. Hamilton learned more thoroughly the advantages of persistence, the study of minute details, self-reliance and honorable business methods, all of which qualities have since characterized his life. But in spite of the flattering offers of the Fairbanks Company to continue in their employ, it seemed to Mr. Hamilton time for him to go into business for himself. Accordingly, he left New York and connected himself with the A. Latham & Co., car locomotive and general machinery manufacturers at White River Junction, Vermont. The financial depression of 1854 wrought such changes that the company went out of business. Free to carry out plans which he had been contemplating for some time, in the summer of 1855, Mr. Hamilton went west, and, after careful investigation, decided to go into the lumber business with his brother, Mr. W. C. Hamilton in Fond du Lac, Wisconsin, under the firm name of I. K. and W. C. Hamilton. They erected a saw mill, bought lands, and conducted a satisfactory business for twelve years. In 1868, for the purpose of enlarging their interests, they sold out in Fond du Lac, and, in connection with Mr. A. C. Merryman erected a gang and circular mill at Marinette, Wisconsin. They acquired large tracts of pine lands on the Menominee river and its branches in Wisconsin and Michigan. In 1873, the company became a corporation under the name of Hamilton and Merryman Company. Of this corporation Mr. I. K. Hamilton is the president, Mr. W. C. Hamilton, vice-president and Mr. A. C. Merryman, secretary. In connection with the mill, in 1875, they opened a yard at the corner of Loomis and 22d streets in Chicago, owning three vessels to convey the lumber from the mill to the yard. Their business has for many years amounted to 30,000,000 feet of lumber and 8,000,000 shingles per annum.

In the same year as the establishment of the yard in Chicago Mr. Hamilton removed his residence to Chicago as manager of the Company's interests in that city to the great regret of his many warm friends in Fond du Lac where he had proved himself an honorable and highly respected citizen.

The Hamilton and Merryman Co. are owners of valuable tracts of timbered lands in Michigan under which there have been found to exist rich deposits of iron ore and other minerals. On one section at Iron Mountain, Michigan, is located the famous Hamilton Iron Mine, which has one of the deepest iron shafts in the country, 1,400 feet. In addition to these interests each member of the corporation is a large owner in the Marinette and Menominee Paper Company of Marinette, Wisconsin, an immense establishment, with a daily capacity of sixty tons of paper manufactured from wood pulp. The rapidly developing lumber trade of the South and especially in the pine lands of Louisiana, as well as other interests, are likewise part of the activities of these progressive business men.

Mr. Hamilton was long a director in the American Exchange National Bank of this city. In this capacity as well as in all others he has the thorough respect and confidence of all who know him. At St. Luke's Hospital he has for many years done valuable service as trustee. He gives his membership, warm personal interest and practical support to a number of charitable societies of various denominations, as well as to those of the Protestant Episcopal Church of which he and his family are members.

Although of a most friendly nature and always welcomed in social circles, Mr. Hamilton finds his chief enjoyment in the simple pleasures of home life. Quiet and unobstrusive, even modest in the advancement of his views, his advice is widely sought and his influence has been and is most helpful and powerful in the development of the northwest and of Chicago. In April, 1898, the business of the Chicago yard was brought to a close, being transferred to the mills at Marinette where the changed condition of the distribution of lumber are fully met in ample railroad and shipping facilities to all sections of the land. Mr. Hamilton, however, will continue to reside at Chicago.

Andrew C. Merryman.—The energy and determination which characterize the American citizen as a whole are nowhere to be found so well illustrated as in the lumber business, nor is their native high principle and fairness of purpose more thoroughly exemplified than in this great industry. Prominent among those who have won a name in this branch of business endeavor is Andrew C. Merryman, a prominent lumberman of Marinette, Wisconsin. In almost every city and important town in the United States the sons of the Pine Tree state are found among the foremost in every profession and avocation. In the thrifty city of Marinette, Wisconsin, there is found no exception to the rule. Among Maine men living and laboring there Andrew C. Merryman takes a foremost place. He was born in Bowdoin, Maine, December 22, 1831, and was the second in order of birth of seven children born to Bailey and Mary (Wilson) Merryman, both natives of that state, and descendants of early English settlers. The father followed agricultural pursuits as his chosen occupation, and on his farm his sons grew to sturdy manhood and were taught lessons of industry and perseverance that have remained with them through life. They labored early and late, and their schooling was limited to about three months in the year, and those to the winter season. When seventeen years old Andrew C. Merryman began learning shipbuilding at Middle Bay, near Portland, and soon became an expert shipwright. During the year 1855 he built the brig A. C. Merryman at Pittston, Maine, and had started in business on his own account when on account of business depression, he was obliged to give up this industry. He then turned his attention to other enterprises and in 1855 went to Wisconsin on a prospecting tour. His quick eye and active brain at once recognized the grand possibilities in the lumber trade there and he, in company with Haynes Hunter and his brother R. W. Merryman, organized the firm of Merryman & Co. A saw mill was started in Fond du Lac, and after disposing of his interests in the east, Mr. Merryman and his partners expended all their ready means in the purchase of pine lands. (The mill is noted in the statistical reports for 1874, the first which are available, as a one circular mill, of 6,000,000 feet annual capacity, erected in 1856, employing fifty men in the mill and thirty-two in logging, and with a cut in 1874 of 5,500,000 feet of lumber and 4,000,000 shingles.) He and his brother later associated themselves with John L. and Alexander McDonald, and under the firm name of McDonald, Merryman & Co. carried on a most successful business. During the year 1866 Mr. Merryman sold his interest in the business in Fond du Lac to his brother and moved to Marinette, Wisconsin, where, in company with I. K. and W. C. Hamilton, he carried on business under the firm title of Hamilton, Merryman & Co. This firm purchased 62,000 acres of government land and began milling at Marinette, where they have since been actively engaged in business. Later the company was converted into a stock company known as the Hamilton & Merryman Co. (see history of Marinette) with a capital of $350,000. This is one of the most substantial and successful lumber concerns in Menominee valley and their annual output is from 30 to 40,000,000 feet of lumber taken from the stump. This is shipped by lake to Chicago to their large distributing yards there. Mr. Merryman has charge of the manufacturing part of the industry and much of the success that has followed this company is due to his excellent management and great business ability. This alone does not occupy all Mr. Merryman's time. He has interests in the Marinette & Menominee Paper Co., the Menominee River Boom Co., the Kaukauna Fibre Co., the Falls Manufacturing Co. of Oconto Falls, and the Hamilton Iron Co. of Iron Mountain. In his political predilections Mr. Merryman is a Prohibitionist and was once that party's candidate for Congress and later its candidate for State Treasurer. He is a typical example of what may be styled a self-made man for he started out in youth to fight the battle of life with little else than a pair of strong hands and a determined spirit. His present enviable position is the result. Mr. Merryman has been twice married, first to Miss Frances Colburn and later to Miss Louise Brown of New York.

John H. Witbeck.—Few names have been more intimately associated with the development of the lumber interests of the northwest, than has that of Witbeck, intimately associated as it is with the mills of Marinette, Wis., and Manistique, Mich., and as well of great prominence in the lumber trade of Chicago. Mr. Witbeck was the son of Henry and Huldah (Yale) Witbeck, the former of whom was born at Athens, Greene county, N. Y., in 1813. At the age of fifteen, he was apprenticed to learn the blacksmith trade, and after five years' service, continued to work as a journeyman until 1845, having in 1843 come west, settling at Chicago, where his name was later to become one of the most prominent in connection with the manufacture and sale of lumber.

In "Fergus reprint (1883) of the Chicago Directory for 1846," we find note under the head of Blacksmiths of "Pierce (Asabel) & Witbeck (Henry) 16 to 22 Market street." This was undoubtedly the beginning of Mr. Witbeck's career in Chicago. In the directory for 1856, Mr. Witbeck is named as a "manufacturer of wagons and plows, on Randolph west of Jefferson street, with residence on Halsted, near Madison." In the conduct of this business he was associated with his brother Isaac T. Witbeck and Albro E. Bishop, whose interests were in 1859 purchased by his son John H. Witbeck and the business was known under the name of H. Witbeck & Co.

About 1863 the Witbecks sold out their interest in this line of business to Albro E. Bishop, and in 1865 became interested in the lumber business established by Cutler, Witbeck & Co. through purchase of the interest of Mr. Whitbeck's son George; Henry and John H. Witbeck purchasing the Cutler & Reed interest and the firm became H. Witbeck & Co., until in the succeeding year (1869) when the H. Witbeck Lumber Company was established.

George Witbeck, a son of Henry, had in 1861, become connected with Asa E. Cutler and John S. Reed in the firm of Cutler, Witbeck & Co. in the lumber business of Chicago, and in 1863 this firm purchased the interest of Mr. Reed in the mill and property known as the Delta Lumber Company at Masonville (Escanaba) Mich., and also erected a saw mill at the mouth of the Manistique river, purchasing stumpage from Charles T. Harvey, representing the estate of Corning & Fairbank, at the price of one dollar per thousand for lumber growing within one mile of the stream.

In November, 1863, John H. Witbeck purchased an undivided one quarter interest in the Delta Lumber Co. plant and timber, and about the same time Henry Witbeck purchased the interest of his son George in the Chicago Lumber Co., as the Manistique operation was known, and in connection with John H. Witbeck bought the combined interests of Cutler & Reed in that company, and formed the firm of H. Witbeck & Co. The interests of the Delta Lumber Co. and those of the Chicago Lumber Co. were separate and distinct, and Mr. J. H. Witbeck in 1864 sold his interest in the Delta Lumber Co. to Richard Mason, and in 1868 Cutler, Witbeck & Co. sold their interest in the Chicago Lumber Co. to James Slauson of Racine, Wisconsin. The Delta Company mills operated one circular and one pony gang, with capacity for sawing 6,000,000 feet per season. In 1869 Henry Witbeck and his son John H. Witbeck began operations at Marinette, Wis., under the firm name of H. Witbeck & Co., purchasing the circular saw mill of Stephenson, Gram & Co., its capacity being 12,500,000 annually, and in 1870 incorporated the H. Witbeck Lumber Co. with a capital of $100,000, subsequently increased to $600,000. The officers of the company were: Daniel Wells, Jr., president; Henry Witbeck, vice-president; John H. Witbeck, secretary and treasurer.

With the introduction of new devices for more economical manufacture in the improvement of the mill from year to year, its cut was increased, until in 1890 it had a record of 28,000,000 feet of lumber, which was added to from year to year until its cut for 1895 reached 43,000,000 feet, with 10,500,000 shingles. In 1886 John H. Witbeck was elected president and treasurer of the company, Daniel Wells, Jr., vice-president and Warren J. Davis, secretary, the two former named gentlemen having reached a ripe old age, entitling them to the honors, without the onerous labor and care attaching to the business. Mr. Henry Witbeck died April 12th, 1891. He was a man of more than usual energy, industry and ability, and none stood higher in the estimation of the community. He took deep interest in the welfare of Chicago, and was a member of the famous "fire council" which brought order out of chaos after the great fire of 1871. For twelve years previous to his death he was vice-president of the National Bank of America.

In the conduct of the vast lumber operations of the H. Witbeck Company, John H. Witbeck has been a most prominent figure, and for many years has been the president, treasurer and general manager of the company's interests, both at the mills at Marinette and in the yards at Chicago, which were maintained until 1894. He was born at Athens, N. Y., April 7, 1836, and came to Chicago with his parents in 1843. There he received his education in its public schools and his introduction to the lumber business was in 1853, when he became a clerk with Edward Wing, a lumberman on the corner of Jackson and Market streets; two years later he entered the employ of John M. Williams, also a lumberman, with yard on the corner of Monroe and Canal streets. In 1857 he purchased an interest in the wagon and implement business until its sale in 1862 to A. E. Bishop. In 1863 he purchased an interest in the lumber firm of Cutler, Witbeck & Co., composed of Asa E. Cutler, George Witbeck (his brother) and John S. Reed, which in 1869 became H. Witbeck Co., through processes already related. Few citizens have taken a more prominent part either in the lumber business of the northwest or in the growth and advancement of Chicago. The vast business of the H. Witbeck & Co. has largely devolved upon his shoulders, while a directorship for many years in the National Bank of America, and the vice-presidency of the Fort Dearborn National Bank, attests his influence in financial circles.

In 1890 he was elected secretary and treasurer of the Chicago and Tampa (Florida) Improvement Co. with holdings of 120,000 acres of land in Hillsboro county, Florida, the capital stock of the company being $500,000. He was for a long period vice-president of the Chicago Vessel Owners' Towing Co.

Socially most genial, he is an honored member of the Masonic fraternity, of which order he reached the 32d degree a full quarter century ago. A past commander of Chicago Commandery No. 19 Knights Templar, he has been for the past twenty-one years Grand Treasurer of the Grand Commandery of Illinois, an office which he still holds.

He was united in marriage January 24th, 1859, to Miss Mary E. Guernsey, a native of New York, daughter of Alonzo and Ellen M. (Hines) Guernsey, pioneers of Chicago (1854). Their children are Henry Yale, James Alonzo, Fannie E. and Grace M.

Of the business qualifications of Mr. Witbeck nothing need be added to what has already been said; the successful conduct of such vast interests as have been involved in the manufacture and disposition of more than 500,000,000 feet of lumber, from the stump to the retailer in the country, is sufficient comment, and it needs but to add, that in his business and social life Mr. Witbeck has won the confidence and regard of all who have been brought into relations with him.

OUTAGAMIE AND WAUPACA COUNTIES

Outagamie county, while never prominent as a lumber producing section has attained great prominence as the center of an extensive wood pulp industry, thus utilizing what would otherwise be a useless product of the forest consisting of small p[illegible] spruce, pine and hemlock of no value for lumber. The Appleton Paper and Pulp Company was incorporated in 1873 with a capital stock of $200,000. Its mills are run by water power and its product about seven tons of pulp daily. The Atlas Paper Company was organized in 1878 with a paid up capital of $250,000 and a daily capacity of five tons of pulp. The Western Wood Pulp mill on the south side of the river at Appleton, was originally of capacity for grinding six tons of pulp daily. The Valley Pulp and Paper mill (1880) manufactured two tons of pulp daily. At Ledy in this county George Kelso started a pulp mill in July, 1881. With passing years, the capacity of these pulp mills was increased and others added, making this county a sort of headquarters for the wood pulp industry. At Kaukauna in 1880 Spaulding & Co. erected a stave factory, Frambach & Stovekin, paper and pulp mills, Hewitt Bros. a saw mill, Reuter Bros. a hub and spoke factory, and A. W. Priest planing and shingle mills. The pulp manufacture has created a demand for small hemlock and poplar timber of no possible value as lumber, and until being utilized in pulp making considered as valueless for any commercial purpose.

In an earlier portion of this history mention has been made of Robert Grignon as among the earlier settlers of the eastern portion of the State. Mr. Grignon in 1848 built the first saw mill in Waupaca county, upon a quarter section obtained by him near the mouth of the Little Wolf. At this mill Philetus Sawyer, later not only a leading and prominent lumberman, but active politician, and for twelve years one of Wisconsin's representatives in the senate of the United States, was a day laborer. In 1848 also, C. S. Ogden who a few years later was elected county judge, built a mill at Ogdensburg which received that name upon occasion of the raising of the frame of the saw mill. New London was in the earlier days the center of supplies for the lumbermen of Wolf river and the interior of Waupaca county, and to this locality small steamers from Oshkosh and Fond du Lac, and other points on Lake Winnebago afforded an easy method of transporting men and supplies, which were conveyed to the upper river camps by canoe or wagon. With the building of the Green Bay & Minnesota, and the Milwaukee, Lake Shore & Western railroads, which traversed the county, mills were built upon the line of roads, and from 1876 the county became more available to the lumberman. Doty & Smith erected a saw mill at New London in 1854. From this date and for several years previously the mills of Oshkosh and other towns on Lake Winnebago, were supplied with logs from the forests of Waupaca and Shawano counties, both of which supplied a grade of timber which averaged with the best, if it did not excel that of any other section of the State of Wisconsin.

Isaac Brown erected a saw mill at Northport in 1873, a stave factory having been in operation since 1864. Brown's mill was to a goodly extent employed in sawing hardwood, his mill capacity of 6,000,000 feet per year being mostly employed upon stock for use in the construction of agricultural implements, the oaks, white and red, with hard maple, hickory, etc., of this section being of the finest character for wagon, implement, or furniture manufacture. Andrew Mack built a small saw mill at Elmwood in 1861, which he operated for several years in the supply of local demands. The Moore brothers built a mill on Little Wolf about 1846, and T. and H. Gill one at Royalton in 1850. A man named Strong built a mill at Lind in 1853-4. A. H. and A. J. Dufur built a steam saw mill at Iola in 1855, which burned shortly after; J. A. Lathrop built a mill at Dayton in 1853; J. J. Demiseg built a steam mill at Bear Creek in 1865, which afterwards was purchased by I. S. Ingersoll; J. W. Raisler erected a mill at the same place in 1869. At Caledonia a mill was built in 1870 by C. Ruggles. Scott & Ogden built a mill at Union in 1873. In the town of Larrabee, ——— Clinton built a mill in 1857, which was burned in 1861 and rebuilt; Conant & Russell built at Fremont in 1856; in 1866 Dr. J. W. Perry built the first mill at Dupont.

W. H. Hatton.—This gentleman is a well-known lumberman of Wisconsin, and has been connected with its interests since 1877. He is a native New Yorker, but in 1870 removed to the Badger state, and in the year 1877 formed a partnership with James Micklejohn, who was an old and prominent lumberman of the State and had operated a saw mill on the Little Wolf from 1850 up to that date. This mill was located three miles below Manawa, but the mill operated by Hatton & Micklejohn, after they became partners, was located at Manawa, and had been operated several years by J. M. Rounds. From 1877 to 1894, when Mr. Micklejohn died, their connection prospered, and after his demise, his son, Andrew G. Micklejohn, took his place. In 1889 they bought out Nash & Weatherby at New London, and have since operated that mill. Their plant at Manawa cuts 5,000,000 feet of lumber and 6,000,000 shingles annually, and the one at New London 6,000,000 feet of lumber and 8,000,000 shingles. Besides these mills, they have operated others at different places and at different times, equaling in volume annually that of the mills at New London and Manawa. Mr. Hatton is one of the best informed and most progressive lumbermen in the county, and does an annual business of enormous proportions. He is conservative in all his views, business, social, religious and political, and has always been found to be the friend of the laboring classes. He has never conducted a "company" store, for he is too thorough a believer in the fullest personal liberty to all his employes in all things, to wholly approve of them. He has always taken the greatest interest in the cause of education, and he is one of the trustees of Ripon College. He was one of the presidential electors for Harrison at his last term, and has always supported the men and measures of the Republican party. Although he is of a quiet and retiring disposition, he is widely and favorably known and is popular with all classes.

CHAPTER XXVIII.

PORTAGE AND WOOD COUNTIES.—PIONEER OPERATIONS.—RIVER RAFTING.—LATER DEVELOPMENT.

SOME years previous to 1822, Pierre A. Grignon owned what was spoken of at that date as the "old" saw mill on a little stream "La Riviere Glaise," or Dutchman's Creek, which he had built some years before, but of which detailed data is missing. During the last sickness of Grignon in the winter of 1822-3, he, having been kindly treated by a priest named Williams, is said to have asked what he could do for him. Williams replied that he wished he could have the old saw mill repaired and have the use of it for a year or two. Grignon at once summoned his confidential clerk, and charged him to see that Williams had the mill as he desired, after his (Grignon's) death. Old records go on to show that the family took charge of the estate, but permitted Williams to use the mill for a year, during which time it is asserted that Williams sawed out 12,000,000 feet of lumber, a statement which is hardly credible, considering the character of the mill, and of the demand for lumber at that early period, no less than the difficulties which would attend the getting in of so large a log stock at that time. Of the subsequent history of this mill we find no record.

Amable Grignon a brother of Pierre, with Lieutenant Randolph B. Morey and Samuel Merrill, obtained a government permit in 1836, to build a saw mill at Grignon Rapids. Daniel Whitney of Green Bay (frequently referred to in these records) had in 1831-2 obtained a government permit to erect a saw mill and to cut timber, and erected a mill at Whitney's Rapids, a little below Point Bausse.

In 1836 by extinguishment of the Indian title, through a treaty with the Menominee Indians, negotiated by Governor Henry Dodge, and embracing the Upper Wisconsin region for six miles in width by forty miles in length, extending from Point Bausse up the river, this region was opened to the lumbermen, and explored from Point Bausse to Big Bull Falls during the same and the following years, and the best localities taken up, both as to pine and desirable sites for its manufacture. Messrs. Bloomer, Strong, and George Cline took possession of the Grand rapids; Abram Bradley secured Mill creek, Parry & Vedder being on the same stream; Conant & Campbell occupied Conant's rapids (opposite Stevens Point) and during the following year, Harper & McCrea (McGreer?) located claims. In 1839 John L. Moore occupied the Big Bull Falls (Wausau), so that by 1840 the whole country was in the possession of lumbermen. Saw mills increased with great rapidity, and were the foundation leading to the locating of the many thriving villages and cities which have since thickly studded the region. In 1839 the Cedar Point cession of three miles in width on the river, was surveyed by the surveyor general of this district, who came from Dubuque for that purpose, and the whole tract was in 1840 offered for sale at the Mineral Point (Iowa county) land office. Between 1841 and 1845 five saw mills were erected upon this cession and villages and towns were founded, so that by 1847 Wausau had a population of 350 souls, and several thousand settlers were scattered throughout this portion of the state, and the fame of the Wisconsin pineries was spread throughout the northwest.

The population of the Upper Wisconsin in 1847 was estimated at above 1,000 souls, and the character of the timber made the fame of the lumber product, to be sounded throughout all sections of the west and south. The outlet for this lumber was by rafts made up at the mills and run during high water to the towns which were springing up on the banks of the Wisconsin, and the growing cities of the Mississippi valley, whence it was hauled inland to serve the rapidly increasing emigration to southern Illinois, Iowa and Missouri.

In 1840 Abram Wood and Willis Rowan built a mill at Baraboo in Sauk county, locating at the upper end of the village, and supplying the local demand, rafted the surplus down the river to the Wisconsin, and thence to a suitable market.

In 1839 the Hon. Henry Merrill took charge of a raft from the Portage, following the Wisconsin to its mouth, where he rebuilt the raft to a condition suited to its long journey and continued down the Mississippi to St. Louis. This he thinks was not the first raft to go down, as he had heard of some small rafts on their way to local points, and is not certain that it was the first out of the Wisconsin to reach St. Louis. So early as 1829 we find record of a raft of tamarack logs floated down the Wisconsin river to the Portage, by a party under the command of Major Twiggs, who whipsawed the logs to sizes which were desirable for the work at Fort Winnebago which he was engaged in building.

Up to 1833 it will be recalled that the entire country north of the Wisconsin river was unceded territory except a small prairie, seven miles long, and from two miles wide at the south to a point on the north, which from as early as 1743 was given by common consent to the French and other settlers, and previous to 1793 had been divided into farms and village lots, but we fail to find trace of the population for whose benefit this was done, and assume that it was upon paper held by some optimistic "boomer," who planned like his successors of later days to catch suckers, who "saw millions in it."

Portage county, which is near the center of the State, and upon the Wisconsin river, has figured prominently in log and lumber production for more than a half century. The river which enters the county in the northwestern portion, takes a southeasterly course to a short distance below Stevens

Point, thence turning abruptly west, to a more southerly course at Grand Rapids in Wood county. This region was one of the first to attract attention to its timber resources, because of the facilities for floating logs and timber to the Mississippi. The earliest lumbering of which we have record upon the Wisconsin river (except by Pierre Grignon as stated above), was in the building in 1829 of Fort Winnebago at Portage, and what sawed lumber was required, beside the square timber got out with an axe, was made by whip saws in pitsawing. The first practical lumbering was in 1831 when David Whitney, prominently mentioned in the other chapters, obtained a permit to build a saw mill and cut timber on the river; his mill was built in 1831-2 at Whitney's Rapids below Point Bausse. Amable Grignon (also mentioned in earlier chapters) with Lieut. Morey and Samuel Merrill succeeded about the same time in obtaining a permit from the government, and built a mill at Grignon's Rapids. The building of these mills soon led to a general exploration of the country, and the upper waters of the river being found to contain apparently unlimited quantities of pine, while the immediate neighborhood contiguous to the river from Point Bausse northward afforded all that the country was ever likely to need, it did not take long after 1836-7 to occupy every eligible site upon the river as far north as "Big Bull" Falls (Wausau). Bloomer & Strong and George Cline secured Grand Rapids (Wood county); Kingston & Draper occupied Biron's Rapids; A. Brawley and Perry & Vedder selected Mill Creek; Conant & Campbell were at Conant's Rapids; and Harper & McGeer located on the Plover at McGreer's Rapids. The various rapids of the river were favorite spots, because of the greater facilities for constructing dams, and the early lumberman, dependent upon water power, congratulated himself upon his good fortune in securing a location where nature had already performed much of the labor requisite in the construction of a dam. The panic of 1837 put a damper for a time upon the operations of the hardy pioneers, but in 1839 George Stevens began a mill at Big Bull Falls (Wausau) and John L. Moore in the same year at Little Bull Falls (Mosinee). The tract which had been ceded by the Indians to the government under what was known as the Cedar Point treaty, was surveyed in 1839 and put on sale in 1840 at the land office which was established at Mineral Point, and for more than a half century has contributed in ever increasing quantities, to the wants in the way of lumber and timber of a rapidly developing nation.

From 1836 to 1845 or later the furor to obtain a mill site upon the log driving waters of a Wisconsin stream, exceeded any excitement of a business character which the nation had hitherto witnessed, and was equaled only by the morus multicaulis, and the "Tulip" excitement of about the same era. The Mexican war in 1844 and the California gold excitement of 1849 and subsequent years, led to an abatement of interest in only a minor degree, and by 1857 it is estimated that there were 3,000 men engaged in lumbering upon the Wisconsin river, and that the log stock exceeded $4,000,000 yearly in value. The forming and running of lumber rafts, was a trade distinct in itself. Above the rapids only shoal and small rafts of three to five thousand feet could be handled; below the last rapids these could be doubled up in size, and on reaching deep water in the Mississippi the rafts were enlarged in length, breadth and depth, both by building thicker, and grouping several cribs together.

As the art of rafting is now nearly extinct, it will not be out of place to describe what may be called a custom of our "ancestors." At the tail (or rear) end of the saw mill an inclined platform was built, upon which were laid three "grub planks," of either two or three inch thickness (usually the latter), in each end of which holes were bored to receive the "grub pins" or hardwood stakes, four feet in length and from two to four inches in diameter. The bottom of the stake was left larger than the top, so as to form a "nub" larger than the holes through which the stake passed; between these stakes the lumber was stacked, each alternate layer crossing the other, binding it into a solid mass. When the requisite number of courses were laid, top grub planks, similarly bored were put on, and the upper end of the stake solidly wedged, holding the grub planks solid, and binding the mass in a body, of strength to resist any ordinary strain which might arise in passing rapids, or in grounding upon bars or shores. When a crib was completed, it was launched and held until a sufficient number were ready for a run. On nearing a rapid or fall, the cribs were made fast to the shore, and each sent separately over the obstruction, to be again united in the eddy or slack water below. The rafts were usually tied up to the shore at night, and the raftsmen camped until morning. As the raft running demanded flood water, the cuts of the mills were largely held until spring, and with the growing extent of the production, it often happened that so many fleets were floated at one time as to create a scarcity of eddy room, and while the rule of first come first served was practically in force, competitions and antagonisms among the raftsmen were not infrequent, often leading to pitched battles. On reaching the Mississippi, a number of fleets were made up into one large raft and floated to the lower river towns, cribs being detached from time to time as the various owners made sale to the dealers along the river. These rafts not infrequently started with from one to two million feet of lumber, in the aggregate, shingles and lath being piled on top of the cribs. As all supplies for many years were obtained through the river route, by steamboat to the head of deep water, and by canoe and batteaux, involving portages around rapids and bars, while the delays in reaching the market with the manufactured product caused returns to be quite uncertain, business was naturally conducted upon an expensive basis. Most of the dealers stocked their mills, and paid operating expenses, through advances obtained from the river dealer, payable "when the rafts come down," while wages were paid in such necessaries (of which tobacco was a prominent feature) as the men required through the logging and sawing season, with final settlement when the returns were made from the sale of the lumber.

With the advent of railroads, river driving fell

John Black.

into disrepute, and methods were wholly changed, the river dealer was no longer an absolute necessity, as the whole country was open to the sale of the product, and returns could be counted upon with but a tithe of the former delay. Planing mills became a necessity, and in place of the lumber reaching the dealer muddy and water-soaked, to be hauled upon the bank, piled and seasoned at great loss of time and heavy expense, large piling grounds were prepared near the mill, and the dressed lumber shipped in car lots direct to the yard of the retail dealer, seasoned and in condition for immediate use. The completion of the Wisconsin Central railroad through the county in 1871 gave a great impetus to this changed condition and river shipments sensibly decreased, while logs continued to be floated down the river to mills below. The reported logging of Portage county in 1873 included 7,000,000 feet on the Wisconsin; 3,700,000 feet on the Little Eau Pleine; 2,000,000 feet on the Big Eau Pleine, and about 1,000,000 feet at Knowlton. In this year there were twenty-three mills in Portage county with an annual cut of 80,000,000 feet of lumber, beside 32,000,000 shingles and a large quantity of lath, and included among the operators and mills: Mehan Bros., 6,000,000 feet capacity; Bosworth & Reilly, 9,000,000; D. W. Bean, 2,000,000; J. Robinson, 6,000,000; Burns, Thompson & Co., 6,000,000; McDill Bros., 3,000,000; Brown & Renseau, 3,000,000; Walker & Wadleigh, 4,500,000; Reading & Van Order, 1,000,000; D. C. McMillan, 2,500,000; N. Boyington, 2,500,000; Burns, Thompson & Co., 3,500,000; Weston & Sons, 5,000,000; Wisconsin River Lumber Co., 5,000,000; Karner & Stevens, 5,000,000; Lester Mill, 1,000,000; J. Hall, 4,000,000; Hutchinson & Bro., 3,000,000; Wallace & Radford, 4,000,000; P. Lamoux, 1,500,000; H. Lee, 800,000; Ole Wrolsted, 800,000; A. H. Bancroft, 800,000.

In 1880 the county reported the following operators and their mill cuts, viz.: at Junction City, A. J. Freeman, 350,000; Stevens Point: Bosworth & Reilly, 7,000,000, shingles, 4,000,000; W. Reading, 400,000; S. H. Karner, 4,440,000; Herren & Wadleigh, 2,500,000; William Weston & Sons, 3,500,000; shingles, 1,700,000; Owen Clark, 10,500,000, shingles, 3,000,000; M. Wadleigh, 4,250,000; S. A. Sherman (Plover), 2,500,000; G. W. Mitchel & Son, 6,500,000, shingles, 2,500,000; Meehan Bros. (Meehan), 10,000,000, shingles, 3,500,000; M. Wood (Meehan), shingles 250,000; W. Reading (Meehan), 350,000.

In 1892 but 24,000,000 feet of lumber and 10,000,000 shingles were reported from Portage county, while in 1897, W. W. Mitchell, 750,000, John Weeks Lumber Co., 7,000,000, shingles 3,000,000, and W. W. Wood, 115,000, shingles, 350,000, comprised the sum total of reported production at this point. Like all of the prominent streams of the northwest, the Wisconsin had its limit of timber resources and will soon be numbered among those sections which must depend upon hemlock and hardwoods for the operation of the mills, which, no longer depending upon river facilities either for obtaining log stock or the shipment of lumber, are rapidly dropping out of commission.

Among the operators in this section from an early day we may mention:

John Week (deceased) was a pioneer of this county, and when a citizen of worth and character has departed this life, it is meet that those who survive him should keep in mind his life work, and hold up to the knowledge and emulation of the young his virtues and the characteristics which distinguished him and made him worthy the esteem of his neighbors. John Week, formerly one of the successful lumbermen of Stevens Point, Wisconsin, was born in Hardinger Parish, Norway, December 6, 1818. He left his native land for the United States in 1839, and first settled in Chicago where he remained for one year, sailing on the lake most of the time. In 1851 he purchased a saw mill of his brother Andrew. This was situated on the Big Eau Pleine river in Marathon county, Wisconsin, and was a water-power mill. It had an upright saw and was one of the first mills built in Marathon county. Mr. Week started in a small way, but the business grew to gigantic proportions. After purchasing the mill he started with his family for the new home, embarking in an Indian canoe from Du Bay's trading post on the Wisconsin river. He brought his supplies from Stevens Point fifty miles by canoe or through the woods. This mill he conducted most successfully from 1851 to 1881, rafting his lumber down the Wisconsin and Mississippi rivers. In the last named year his mill was destroyed by fire and he moved his home and business to Stevens Point. When the mill burned he had no insurance, but in this case a seeming calamity proved a blessing. He had six million feet of logs and had he sawed them in Marathon county the lumber would have been rafted to the Mississippi where he would have received $10 per thousand. Owing to the delay caused by the fire and getting the logs to Stevens Point, he did not get them sawed until the next year when he received $17 per M., making a clear gain of $40,000. Mr. Week used the first circular saw on the Wisconsin river.

He also used the first band in the mills on Wisconsin river. This was in 1884, in which year his business was incorporated as John Week Lumber Company, with a capital stock of $50,000. The incorporators were John Week and his sons, Nelson A., Andrew R. and Edmund R. The management was placed in the hands of his sons during the last five years of his life, he having discontinued active business. Mr. Week was not alone prominent in lumber circles but as a citizen and neighbor was well and favorably known. He was commissioner of Marathon county for about ten years and was also a member of the county board. His death occurred June 4th, 1891. The business has since been continued under the old name of John Week Lumber Company. Nelson A. Week is now president and Andrew R. Week is secretary and treasurer. They have inherited the excellent business acumen of their father as well as his many other excellent traits, and have been eminently successful. They are classed among the foremost business men of the state. Besides having personal charge of the mill plant Andrew R. Week is also president of the First National Bank.

WOOD COUNTY.

Wood county is watered by the Wisconsin river, and on the southeast by several sizable creeks or tributaries, including Yellow river, and crossed by several lines of railroad. Wood county with its vast forests of pine, oaks, white and red, white and black ash, butternut, hard maple, basswood and hemlock, has contained within its limits a source of forest wealth exceeded by few other sections of the State. Of the timber, pine largely predominated, and it was his knowledge of the excellent character of this timber which induced Danied Whitney of Green Bay in the winter of 1827 to seek a permit from the Winnebago Indians, which would enable him to undertake the manufacture of shingles on Yellow river. Here with a force of twenty-two or more Stockbridge Indians, he spent the winter, and got out about 200,000 breasted shingles. Looking back three quarters of a century, and remembering the antipathy of the average Indian to work, and as well his objections to seeing the early settlers and lumbermen gain a foothold upon a territory which had been held under an undisputed title by his fathers for centuries, it is interesting to note the willingness of the Stockbridge Indians to engage in manual labor, such as was involved in the cutting and splitting of timber, its riving into rough slabs, and its finish by the draw shave, a tool of which they had hitherto no knowledge.

But if the Winnebagos were willing that their country should be invaded by the white man whose mission it was to despoil their forests, Major Twiggs in command at Fort Winnebago was of a different mind. The major sent word to the camp that shingle making must cease, and the men must get out of the country, or there would be trouble, following this up toward spring by confiscating a portion of the shingles and destroying the rest. He evidently took such portion as was requisite in the work of building Fort Winnebago and its attendant buildings, which while constructed of logs, were more comfortable for their roofs being laid with shingles, while it was long asserted that all the sawed lumber, as well as shingles used in their construction, was so obtained by Major Twiggs as to cost the government nothing. Mr. Whitney placed his loss at $1,800. Major Twiggs was quite opposed to Mr. Whitney's obtaining a foothold in the new country, but in 1831, Mr. Whitney obtained a permit from the war department to erect a mill and cut timber on Wisconsin river, under his arrangement with the Winnebago tribe, and during 1831-2 with the aid of his nephew David R. Whitney and A. B. Sampson he built the first mill on the main river at a place which they named Whitney's Rapids, about ten miles down the river from the later city of Grand Rapids, and below Point Bausse. In 1836, Grignon & Merrill erected a similar mill (on a permit from the government) at a place which they named Grignon's Rapids. In 1838 Nelson Strong obtained a similar permit and in connection with A. B. Sampson of Whitney's mills, secured the mill site at Grand Rapids; Sampson sold his interest to Strong who now associated himself with Robert Bloomer, and these two built a saw mill, and finding Indians who were willing to work, operated the mill for some years, with that kind of help. The first lumber cut at the mill was used by Mr. Strong to build a dwelling, the first frame house in the county. David R. Whitney died in 1838, and the mills at Whitney's rapids were operated by Mr. Sampson until 1840, when he removed to Grand Rapids. Daniel Whitney was a man of general affairs in various parts of the territory, and does not appear to have given much personal attention to the mill after it had once started. The Grignon mill in 1853 was purchased by Joseph L. Cotey, and was long known as the Merrill mill, it having been operated for several years previous to 1853, by S. R. Merrill. Up to 1856, Wood county was a portion of Portage county and at this time contained about 1,000 inhabitants, whose principal business was shingle weaving, from government timber, which was looked upon as common property. In 1840 a strip of land three miles deep on each side of the Wisconsin river and extending from three miles below Grand Rapids to as far north as Wausau, was surveyed by the government, and sold to such as desired to purchase sites for the erection of saw mills. Aside from this but little land was sold until 1856, although the government lands were surveyed and placed in market in 1851. The means of communication with the outside world was mainly through batteaux and canoes to Portage and up the Fox river to Green Bay. From 1855 Thomas B. Scott was the heaviest manufacturer of lumber at Grand Rapids (see sketch).

At Centralia, opposite and practically a portion of Grand Rapids, F. McKinnon and C. L. Griffith in 1879, started a factory for the manufacture of hubs, spokes and wagon stock which developed into an extensive business, amounting to from $75,000 to $100,000 per year. At the same place is a chair factory of considerable extent, these depending upon the valuable hardwoods of this section for manufactures which have greatly added to the wealth of the community. W. G. and J. H. Wharton for a number of years operated a saw mill of 35,000 feet daily capacity at Vesper, about twelve miles west of the river, with planing mills for the finer preparation of the lumber. The Garrison mill at Centralia was operated from 1854 to 1875 by Orestes Garrison, elsewhere mentioned. In 1861 Reuben C. Lyon, who had owned and operated the Whitney-Sampson mill, and later, in company with A. B. Sampson, built a mill (1849-50) which seven years later they sold to Thomas Hurley, in 1861 bought the Whitney mill, and built the first shingle and planing mill in this section.

Marshfield was chosen in 1878 by C. Upham & Brother as a promising site for a saw mill, and a mill of 75,000 feet per day erected to which a year or two later, a large planing mill was attached, to accommodate the rapidly increasing trade of the railroad mills to the yards direct of the retailers of lumber throughout the west. The Upham Manufacturing Company which in later years succeeded to the business thus established, not only became one of the leading lumber houses of the State, but in 1895-6 gave to the State one of the best chief magistrates it has had the privilege of prospering under, viz., William H. Upham, whose term expired in January, 1897. In 1878 also the Webster Manufacturing Company of Menasha built a hub and spoke factory, with capacity for the production of from seven to ten car loads per week from the excellent hardwoods of the neighborhood, supplemented, as by this time the stock could be, by supplies of timber brought by rail from more distant points. In 1881 Symes & Brother built a stave mill which gave employ to about sixty-five employes. At the village of Auburndale a steam saw mill was erected by Forest W. and John J. Kingsbury in 1872, which was successfully operated until 1880, when it was burned. In 1874 a mill was built by Hoskins & Roe, who sold it in 1876 to R. Connor, who in 1878 added a planing mill; this mill was capable of cutting 10,000,000 feet per year. Robert Connor with his brothers James and John settled at Auburndale in 1873, the first in that immediate vicinity, and after clearing up a piece of land built a steam saw mill, with shingle, lath, stave and heading machinery, and gave the name of Auburndale to the settlement. At Dexterville George Hiles and Henry Searles made their first move at the erection of a saw mill in October, 1850, and from the humble beginning there developed a saw and shingle mill with planing mill, and in 1881 a tub and pail factory. Mr. Hiles also has a mill at Scranton a few miles distant in the same county.

Samuel Hiles a brother of George Hiles, built a mill on Yellow river, the first to be built north of Necedah upon that stream, in 1850. In 1856 L. A. Houston built what was known as the "Hurlbut" mill at Dexterville. At Pittsville in 1856 Oliver W. Pitts erected a shingle mill, which later was sold to A. J. Webster & Co., who turned it into a hub and spoke factory. Mr. Pitts had previously operated a saw mill built in 1851 by C. D. Newbury, who left the vicinity before its completion, and it was sold to Daniel T. Bunker, who finished it and sold it to Miller & Avery, who disposed of it to Mr. Pitts. After 1879-80 the history of this section was merged into that of the railroads, which by this time presented better facilities for marketing the product of its mills than those presented by river rafting, and the mills later adopted the policy of piling and seasoning, by dry kiln as well as in the open air, most of the mills adding planing mill facilities, cultivated a trade in finished lumber with the retail yards of all sections of the land.

Hon. William H. Upham.—The old Bay state has contributed many eminent men to swell the population of Wisconsin, but she has contributed none more eminent or held in higher repute than Hon. William H. Upham, ex-governor of Wisconsin. He was born at Westminster, Mass., May 3, 1841, and is of English origin. The first member of this family to settle in America was John Upham, who found a home in Weymouth, Mass., in 1635. William H. Upham received a fair education in the common schools and when eleven years old accompanied his parents to Niles, Mich. After the death of the father, he moved with his mother to Racine, Wis. This was in 1853. At the breaking out of the rebellion he enlisted in the Belle City Rifles, which became a part of the 2d Wisconsin Infantry, and on the 2st of July, 1861, participated in the battle of Bull Run. Here he was shot through the lungs and left on the field for dead. As news of his death was sent home he was mourned by friends, and papers published long eulogies and a sermon was delivered in one of the Racine churches, commending his career, etc. Two months after the battle Mr. Upham was found in Libby prison, where he had been all the time. He was paroled and was sent for by President Lincoln, who thought young Upham could give him some valuable information concerning the affairs in the south. Mr. Upham could do this and made a very favorable impression on Mr. Lincoln, who later appointed him to a position as cadet at West Point, where he graduated. After this he was commissioned lieutenant of the regular United States army and his first duty was to guard Jefferson Davis, then in prison at Fortress Monroe. After four years in the army he resigned and returned to Wisconsin, where he has since led an active life, in the upbuilding and development of the State. When Marshfield was laid out in 1879 he went there and built a saw and shingle mill. Besides being interested in lumbering Mr. Upham is also at the head of a large furniture establishment, and conducts a large general store. Aside from this he operates a planing mill and a large machine shop, and has the most extensive flouring mills in the northwest. He employs many people in his vast concerns and his pay roll amounts to $4,000 a week. In 1887 Marshfield was almost wholly destroyed by fire and Mr. Upham was one of the heaviest losers. However, he at once commenced rebuilding and the town was soon much more substantial than it was prior to this. Mr. Upham has not lost his interest in military affairs, but is a member of the Loyal Legion and the G. A. R. He was once department commander for the Wisconsin G. A. R., was on the staff of Commander-in-Chief Lucius Fairchild, as aid-de-camp, with rank of major, and was appointed by President Arthur on the board of visitors to the naval academy at Annapolis. He is an active worker for the Republican party. In 1894 he was nominated at Milwaukee for governor and although there were ten other candidates and the State had gone Democratic the two previous elections, Mr. Upham was elected after one of the most hotly contested political battles known in the history of the State, having a plurality of over 53,000, the largest plurality ever given a gubernatorial candidate, and for which he received many congratulations. He went out of office after two years' faithful discharge of his duty and resumed his successful business operations. His wife was formerly Miss Mary C. Kelly of Quaker ancestry.

CHAPTER XXIX.—THE BLACK RIVER.

TAYLOR, PRICE, JACKSON, PEPIN, PIERCE, POLK, BUFFALO AND TREMPEALEAU COUNTIES.

TAYLOR county, central in the more northerly portion of the State, is watered by the Yellow and Jump, tributaries of the Chippewa river, by Black river, and by Rib river, a tributary of the Wisconsin. These streams have all been utilized as logging streams, but until the building of the Wisconsin Central railroad, there was but little inducement for the settlement of a region whose main attraction was its practically inaccessible timber. The first actual settler was Alvin E. Harder, who located a homestead in 1872, and in 1875 the county was incorporated as a separate autonomy, and at the first election at the single polling-place in the new county 197 votes were deposited. Medford on the southeast border of the county and on the line of the Wisconsin Central railroad, was laid out in 1875 by the railroad company, conjointly with James Semple, who died and his interests were acquired by a mill company, organized by Whelan Roberts, the latter parties finding it for their interest to donate a half interest in the village site to the railroad company, in consideration of benefits to be derived from the location of a station, and other advantages growing out of the road. During the season of 1875, the manufacture of lumber had reached a point enabling the shipment of 291 cars containing 1,549,588 feet of lumber and 11,071,000 shingles. Stetsonville, a few miles south of Medford and also on the railroad, was settled by E. K. Buttrick, who erected a steam saw mill of 30,000 feet of lumber and 30,000 shingles daily capacity. W. W. Fry built a shingle mill of 30,000 per day capacity at Medford in 1880. In the neighborhood of Chelsea hemlock abounded in profusion upon from 50,000 to 60,000 acres, which, beside the value of the timber in saw logs, was estimated to produce fully 300,000 cords of tan-bark of superior quality. From this town the export of cedar and hemlock ties, and cedar telegraph and telephone poles has been very heavy for a quarter of a century or more. In the town of Westboro a mill was built in 1874 by Duncan, Taylor & Richie, which was known as the Duncan mill, its capacity being 50,000 feet of lumber and 100,000 shingles daily. C. C. Palmer was also among the earlier of the mill owners. In 1879 Sterling D. Cone built a mill of 30,000 feet of lumber and 35,000 shingles daily capacity. The cut of this locality in gross is included in the figures of production credited to the Wisconsin Central railroad.

Price county was one of the heaviest timbered counties of Wisconsin, its waters including the Flambeau with its many branches, and Jump creek on the west, tributaries of the Chippewa, while Spirit river and other small streams on the east flow into the Wisconsin river. The timber resources of the county were originally estimated at 2,500,000,000 feet, and from about 1856 to 1860 the region was a favorite one with Chippewa lumbermen, who for many years depended upon it for an average of ninety to one hundred million feet of logs per year. Being removed from all conveniences for the transportation of lumber, it was not until the building of the Wisconsin Central railroad in 1873 that the local manufacture of lumber could be made profitable, and in 1882 there were but two mills in operation, one being on the Spirit river in the town of Burlington, operated by A. A. Adams for the convenience of settlers.

At a subsequent date mills were erected at various points in the county upon the line of railroad; among the principal of these was that of the John R. Davis Lumber Co. at Phillips, with an annual cut of 50,000,000 feet of lumber and 20,000,000 shingles, and that of B. M. Holmes at Ogema, with an annual cut of 5,000,000 feet of lumber and 12,000,000 shingles as reported in 1892. The Fifield Lumber Company at Fifield is first reported in 1895, with a cut of 3,000,000 feet of lumber and 500,000 shingles. Other smaller mills of which no data is obtainable, have since the building of the railroad, been erected in this county.

Jackson county is watered by the Black, Trempealeau, Beaver and Beef rivers, and is traversed by several lines of railroad, affording excellent facilities for handling the products of the large extent of forest watered by those streams and tributary to the railroads. Black river has been an important factor in the forestry interests of the State of Wisconsin from an early day, the French trader Rolette being credited with the building of a small saw mill at Black river falls so early as 1818, but the opposition of the Winnebago Indians was so strong that after burning the mill they drove the lumbermen from the river. No further attempt seems to have been made to establish the industry until 1839, when Jacob Spaulding, with Robert and Andrew Woods, reached the falls with a company of fourteen employes, and began the erection of a saw mill, which commenced operations during the following winter. During the progress of the work it became necessary to visit the settlements at Warsaw and Prairie du Chien and other points on the Mississippi, to obtain supplies and the iron-work needful about the mill, and the journey southward was made in canoes, the only available method of travel aside from a long tramp through the intervening wilderness. The iron-work was procured at Warsaw, Illinois, and was transported by steam boat and keel boat to Winnesheik, where being frozen in, and unable to proceed further, recourse was had to moose sleds, drawn by single oxen, and the supplies were hauled over the ice and through the forests to their destination at Black river falls.

In February, 1840, Chief "Menominee" appeared with a party of Indians and for a few days partook of the hospitality of the lumbermen, greatly depleting their none too abundant supplies of provisions, rewarding their hospitable entertainers with orders to depart from the country. Spaulding and his comrades, however, had come to stay, and did not propose thus to be driven out. By strategy and the use of little "fire-water," of which the Indians were extremely fond, the band was collected in one portion of the double log cabin and confronted not only by demand to evacuate and get out of the settlement, but by show of arms to enforce the demand, orders which even Indian valor did not see fit to resist, and nothing being better calculated to inspire an Indian with respect than a show of fearlessness and contempt for his demands, the bold front of the hardy pioneers secured for them the firm friendship of Menominee and his band. During the following spring the Woods brothers and Spaulding having a falling out, the former ejected the latter and took possession of the mill and business. Spaulding, however, through legal process issued by the court at Prairie du Chien, was again restored to his position as cotenant by the sheriff of Crawford county, who accompanied him to the falls for that purpose.

In the spring of 1840 Hon. James O'Neil of Prairie du Chien, who had reached the river in the fall of 1839 with his brother Alexander and several employes for the purpose of getting out timber, built a mill at the mouth of Perry creek. They settled about three miles below Black river falls, and later removed to Clark county and were the first settlers of the village of Neilsville.

In 1841 Andrew Sheppard and John Valentine began lumbering operations near the falls, and in the fall of that year Spaulding and Woods, whose difficulties had been patched up, built a second and larger mill on what was in later years the site of the mill of D. J. Spaulding. The mill was ready for operation in the spring of 1842, when the incompatibility of the partners again becoming manifest, Spaulding purchased Woods' interest, agreeing to deliver him 400,000 feet of lumber in three annual installments, deliverable at Quincy, Illinois, and to assume the debts of the company, which now amounted to $5,000, a large sum for the day and circumstances, but showing the optimistic view which even at so early a day was entertained regarding the future of the lumber business of this section. Spaulding's troubles were not all confined to his difficulties with his partner Woods and the Indians, for in the spring of 1841 a party of Mormons in search of timber for the building of a temple at Nauvoo, Illinois, jumped his timber claim, and had felled about three hundred trees, when Jacob Spaulding appeared on the scene with a force of twenty men and demanded by what right they trespassed upon his timber. The Mormons asserted that they had as good a right to the timber as Spaulding had, and would cut timber when and where they pleased, but changed their minds when Spaulding marshaled his men into position and gave the intruders ten minutes to leave the timber, which they did within the time limited. Not satisfied, however, with their expulsion, they sent to Nauvoo for reinforcements of men and guns, hearing of which, Spaulding appealed to the commander of Fort Crawford and was assured of aid in case of emergency, and this coming to the knowledge of the Mormons, they concluded that discretion was the better part of valor, and in the spring of 1842 peaceably purchased from Spaulding the original mill on Town creek with the timber rights and buildings, agreeing to pay $20,000 for the same, in lumber. Upon the death of Joe Smith, the Mormon prophet, at Nauvoo in 1844, the elders decided to sell the property back to Spaulding, and they returned to Nauvoo to avenge the prophet's death.

Thomas and Peter Hall, Canadians, commenced lumbering and built a mill in 1842 on Hall's creek, and by the close of 1844 there were eight mills in operation on Black river, all but one being driven by flutter wheels to the old-time gate saw, one only being equipped with a "mulay," which was about this time being introduced to the saw mill world, which was exceedingly slow to adopt such an innovation, although bringing with it such a reduction in the weight to be raised with every clip of the saw as materially to add to the power of the flutter wheel, a fact which slowly dawning upon the minds of manufacturers, the ponderous gate was within the next ten years almost wholly superseded by the new device, destined but a few years later to give place to the rotary, which after a wasteful destruction of a majority of the best timber in the country, gave place in turn to the gang and band saw, whose economy in the saving of timber can scarcely be exceeded by any device which the future may bring forth, unless, perchance, the developments of electricity may enable the cutting of lumber by a wire which will dispense with all loss by saw-kerf, a consummation scarcely within the range of possibility, while yet in this utilitarian age nothing seems impossible, except a renewal of the forest supply.

By 1846 the lumber industry of the Black river within the limits of Jackson county was estimated at about 5,000,000 feet annually, with a constant increase until 1880 when it was estimated at 30,000,000 feet, at which time it is safe to say that the forests of the townships of Albion, Alma, Sullivan and Millston in Jackson county had produced in the neighborhood of 800,000,000 feet of lumber.

In 1847 occurred a most disastrous flood in Black river, which in its rise of twenty-two feet, swept away the large mill of Spaulding, which was rebuilt and put in operation the following year by Thomas Patterson, who was for several years of the firm of Patterson & Brockway, operating the lower falls mill.

The first government survey of this region began in 1847, and the land about the falls came into the market in 1849, when Andrew Woods renewed his old quarrel with Spaulding by taking out a patent under the provisions of the pre-emption act, he claiming this right through an asserted failure on the part of Jacob Spaulding to pay him as agreed upon. This pre-emption covered all the mill property and improvements at the falls. Spaulding on hearing of Woods' action, caused his arrest for perjury, but Woods was acquitted. Suit followed suit and counter-suit until 1860, when a compromise was effected by which Spaulding's title was secured. In 1850 the mills of Jackson county included those of Thomas Douglas, Nichols, Sheppard & Valentine; James Perry, Brockway & Patterson, Jacob Spaulding, T. & P. Hall, and the Hambleton mill erected in 1846 by John Adams; at a later day D. J. Spaulding and Hon. William T. Price were the most prominent lumbermen of this section. J. W. Cole & Co. operated a mill in 1874, as did Alvin S. Trow, whose cut was 6,000,000 feet per year. A. M. Josher & Co. built a steam mill about two miles above the falls in 1858.

The first compilation of statistics of this region in 1874, names mills and their production as follows: D. J. Spaulding (built 1871), capacity 8,000,000, two circulars, cut of 1874, 2,000,000 feet of lumber, shingles, 500,000; E. L. Brockway (1873), capacity 2,000,000, 1 circular, cut 1,000,000 feet; Harrison Burchard, capacity 3,000,000, one circular, cut 2,000,000 feet; John Smith, capacity 2,000,000, cut 1,500,000 feet; Morrison Creek Lumber Co., capacity 3,000,000, cut 2,500,000 feet—a total of 9,000,000 feet of lumber and 500,000 shingles.

Merrillan is second only in importance to Black River Falls in its lumber industry. In 1855 L. G. Merrill and A. S. Hayden built a saw mill near the foot of what later was known as Main street; this they operated until 1876, when it was torn down. With the building of the Green Bay railroad this section received a great impetus, and a number of saw mills were erected in the vicinity of Merrillan. In 1874 H. Ketchum built a large steam mill three miles north of the village, capable of cutting 12,000,000 to 15,000,000 feet per season. C. A. Paine & Co. became its proprietors in the following year, and while in their hands it was destroyed by fire, but soon after rebuilt and a large planing mill added. Its lumber is brought by a tram road to the station at Merrillan for shipment. D. B. Lyons & Sons' mill was located on the north branch of Hall's creek two miles north of the village, being a water mill with planing mill, shingles and lath machinery, and sash, door and blind manufactory in connection. Wakefield, Trow & Co. are located one and a half miles east of Merrillan on the Green Bay railroad, operating by both water and steam power. The B. H. Merrill (1875) mill was one-half mile west of the village. H. Fuller had a water mill on the west branch of Hall's creek, which lost its dam in a flood in 1881. The Merrill & Jones mill on the east bank of Hall's creek, was a steam mill; the Hayden mill on the main branch was destroyed by the freshet of 1881. At Alma Center, Peter and Thomas Hall (after whom Hall's creek was given its name), J. M. & E. W. Warren, with E. O. Jones and the Wright Brothers, established mills in 1850, and in 1855 Henry Jacobs built one at Melrose. Robert and Thomas Douglas had a mill at North Bend as early as 1842, which they operated for twelve years (elsewhere mentioned). Jacob A. Johnson in 1858 built a mill at the mouth of Douglas creek, which after three years was destroyed by fire and not rebuilt. H. B. Mills erected a mill on Robinson's creek in 1857; in 1855 a mill on Robinson's creek was operated by I. M. Hill & Co., of which A. W. Pettibone was a member; this mill was on the site of a sash mill built by David Robinson, who named the creek, the later mill was a water mill with circular and mulay. The mills of this section have never been reported with such regularity as to enable a detailed history of the operations of later years, and their cut has for many years been included among those embraced under the heading of "miscellaneous," and in connection with railroad statistics. Reference to the chapter regarding La Crosse county will be found of interest in connection with the earliest history of Jackson county.

Pepin county, on the west side of the State is separated from Minnesota by Lake Pepin. While never noted for its lumber production, it is watered by the Chippewa and other streams noted for their timber resources. The native timber of Pepin county was more largely hardwood, which was of excellent quality. The first saw mill in the county was built in 1852 by W. F. Holbrook, and was located on Arkansaw creek. In 1857 W. F. Prindle, George Ellsworth and W. E. Hays built a mill at Durand, whose manufacturing capacity was about 15,000 feet per day; Durand being located upon the banks of the Chippewa river, no difficulty was experienced in obtaining supplies, but the location has never assumed prominence as a lumber manufacturing point. C. N. Averill built a small mill at Bear creek in 1855. The practical history of this county is included in that of the Chipppewa valley.

Pierce county, like its neighbor of Pepin, which it adjoins on the west, is not included in the list of lumber producing sections, its timber resources being almost wholly of hardwoods, this locality being the southern border of a belt of oaks, red, white and black, with sugar maple and butternut, which extends northward from the Mississippi river to Lake Superior, and which has been found of great value in the manufacture of furniture and agricultural implements. John Barnes built a small saw mill at Ellsworth about 1864, which aided for a time in promoting the growth of that village, until it was destroyed by fire. Evans & Sanderson built a second mill, which was for many years operated by G. W. Kimball & Son in supplying a local trade; its capacity was but 5,000 feet daily. A stave and heading mill was operated for several years subsequent to 1874 by Obadiah Eames. At Maiden Rock in the southern part of the county J. D. Trumbull built a steam saw mill with a twenty-four horse-power engine in 1855, adding a shingle mill shortly after. At Prescott, the county seat, Silverton & Dudley built a saw mill in 1856, which they operated for a number of years. C. B. Cox in 1850 erected a mill at Clifton Hollow, in the Kinnickinnic valley, and two years later N. N. & O. S. Powell built a mill which burned in 1856. In 1865 these parties built a mill below the Junction Flouring mills; this also was burned in 1872. Mr. —— Foster built a mill on the north branch of the Kinnickinnic in 1854. None of the mills of Pierce county cut any prominent figure beyond their utility and value to the local population of their neighborhoods.

Polk county, of which the St. Croix river forms the western boundary, while not of great prominence in lumber production, is situate in a neighborhood

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impregnated with the odor of the pine logs which float through its territory on their way to the mills at Stillwater, Minnesota, while yet the northern part of the county was originally by no means destitute of excellent bodies of pine timber. Daniel Greysolon Du Lhut (Duluth) visited this section in 1681, as did Father Louis Hennepin, and Jonathan Carver made a map of it in 1766. Actual settlement, however, must be dated from 1837, when several venturesome settlers squatted at St. Croix Falls. In 1838 the St. Louis Company, W. S. Hungerford, James Livingston, Franklin Steele, Dr. George W. Fitch, James Libbey, B. F. Titcomb and W. S. Holcombe, living at St. Louis, Missouri, and Alton, Illinois, built a dam and essayed to do a general lumber, manufacturing and trading business at St. Croix Falls, erecting a saw mill, which was like all others of the day, a sash mill of small calibre. In but a few years the company failed and the property passed into the hands of James Pennington, an old Maine lumberman, who greatly improved the mill and conducted a prosperous business for several years. In 1844 William Kent and his two brothers built the second saw mill in the county at Osceola. This county is traversed by branches of the St. Croix river, which with the St. Paul, Minneapolis & Omaha, and Sault Ste. Marie railroads, absorbs the lumber production of the county, the statistics regarding which will be found included in the records of those roads, and that of the St. Croix river.

Beef Slough in Buffalo county has for many years been noted as the location of booming works, for the care, assorting and rafting of logs from the Chippewa river destined as stock for the mills of the Mississippi below this point. The "slough" is formed from the waters of the Chippewa, which dividing at a point about six miles from its confluence with the Mississippi, forms two channels, running parallel at variable distances from the main stream, the waters of one portion entering the Mississippi several miles below the other, at Buffalo river, sometimes called "Beef" river. On account of the sluggish current these waters form an advantageous log harbor, of which two corporations have taken advantage, after much litigation and legislation to secure that privilege, the cities of Eau Claire and Chippewa Falls for many years throwing every possible impediment in the way of the passing of logs past those localities.

In April, 1866, the State legislature gave authority for the erection of such booms, piers, wing dams, etc. as should be necessary for the work of booming logs, providing, however, that such works as should be erected should present no obstruction to the navigation of the river by boats seeking to reach the cities of the upper river. The Beef Slough Manufacturing, Booming, Logging and Transportation Company was incorporated, and made improvements costing in the neighborhood of $2,000,000, its works extending for a distance of five miles up the river. Later the Mississippi Logging Company, Frederick Weyerhaeuser president, Arthur Lamb vice-president, and Thomas Irvine secretary, was organized. The two companies handled for many years almost the entire stock of the mills of the Mississippi below this point, amounting to about 300,000,000 feet per year; extended mention of their operations will be found elsewhere in this volume.

The village of Alma on the Mississippi river, and upon the banks of Beef river, is the headquarters of the Beef Slough Booming, Manufacturing and Transportation Company, whose operations began with the season of 1867. So early as 1857 a mill had been erected at Buffalo City by a man named Michael, which in 1865 was removed to Alma by Frederick Lane and Charles Schattle. Its original capacity was in the neighborhood of 8,000 feet per day, but with the rebuilding and addition of more modern machinery, it in 1880 was increased to 20,000 feet daily, besides a large quantity of shingles. Its product was mainly devoted to local demand. In 1870 Frederick Fisher built a mill of 20,000 feet daily capacity, which two years later was sold to Adam Grams, and in 1875 was operated by Williams & Welthey, who doubled its power and increased its capacity to 40,000 feet per day. In 1879 it passed into the hands of R. R. Kempter, who in 1880 leased it to the Meridian Mill Co., whose product was rafted to markets below.

In 1854 a saw mill was erected at Fountain between Alma and Winona, by Edmund Bishop, who in 1856 sold it to Slingluff, Carpenter & Co.; this mill had capacity for the manufacture of 12,000 feet daily. Bohn, Grant & Co. purchased it in 1864 and operated it for several years; in 1877 this mill came into the possession of Henry Teckenburg.

Hon. George Gale erected a saw mill at Galesville in Trempeleau county in 1855-6; this was a waterpower sash mill, which contributed in no small degree to the comfort and convenience of the early settlers. With the saw mill, which was located on Beaver creek, was a grist mill. In 1856 a company organized by Bredenthal, King & Co., built a mill at Trempeleau, but the location proved unfortunate, as the mill was built during high water, and on its subsidence the mill was left high and dry in a position where it cost more to get logs to it than the lumber was worth, and its operations were of a brief nature. The county is traversed on the north by the Chicago, St. Paul, Minneapolis & Omaha road, and from east to west by the Green Bay road, in the records of which the lumber production is included.

CHAPTER XXX.

MARATHON, JUNEAU, MARQUETTE, LINCOLN AND ONEIDA COUNTIES.—PERSONAL SKETCHES.

THE waters of the Wisconsin river flowing through Marathon county receive accessions from Prairie, Pine, Trap, Big Eau Claire, Bull creek and other minor streams on the east, and Silver creek, Rib river, Big Eau Pleine and other branches on the west, all of which have contributed to the log stock which has supplied the mills of the various manufacturing towns of the county, which in later years have been favored by the railroad facilities afforded by the Wisconsin Central and Wisconsin Valley roads, upon whose lines many mills have been erected at points distant from the rivers.

The first lumbermen to operate in this county were John L. Moore, who in 1839 started camps at Mosinee, and George Stevens (who gave the name to Stevens Point in Portage county), who in this year began operations at Wausau. The first lumber rafts from Wausau, which started down the river in 1841, were but nine courses of one-inch lumber in depth, and were thus run to deeper water where they were doubled up, until reaching the mouth of the river, they were made into larger rafts for the journey to the towns which were rapidly building up on the banks of the Mississippi. Upon the Big Eau Claire river, which empties into the Wisconsin just below Wausau, Orland Rood put in a camp in 1842, and from this date extensive operations were entered upon, so far as the flutter wheel water mills of the day could in their manufacture be called "extensive." Early in the forties James Loup, —— Shepherd and P. B. Crosby built a mill, which was burned, and rebuilt by Loup & Crosby. Until 1845 there were no laid-out roads in the county, the river being the only highway, navigated by canoes and batteaux in summer, entailing much labor in transferring at the various portages around rapids and falls, while the ice in winter formed a much preferable highway, albeit entailing long journeys and much hardship in the conveyance of men and supplies. George Stevens was the first to build a mill at Wausau, and the pioneer of the vast lumber business which was afterwards developed at this point. His mill was sold to —— Baker, who after operating it for some years, sold it to W. D. McIndoe, and it formed the nucleus of the later and present large operation of J. & A. Stewart. William Scholfield, who came to Wisconsin in 1856, is credited with the purchase, soon after, of a mill built by a Mr. Martin in which he placed the first rotary saw which was brought into this section, the mills up to that time having been sash or gate mills, with an occasional mulay saw. Of the many small mills which were erected in the county subsequent to those mentioned, it is impossible to particularize.

Walter McIndoe, who was for many years a prominent manufacturer, went to Wausau in 1846, and purchased a mill which had been built by Boswell & Coleman, which he operated until his death in 1872. Benjamin Berry built the first mill on Trapp river in 1846; Captain Simon Lumbard, who located at Scholfield in 1848, built in connection with Dr. Scholfield the mill previously mentioned. Benjamin Single built a water mill in Little Rib river in 1844, and in 1851 built a steam mill, which was burned in 1871 and a steam mill of 40,000 feet daily capacity took its place. Alexander Stewart, for many years a leading operator at Wausau, engaged in lumbering at that place in 1849, an occupation which he followed until 1871, when the firm of J. & A. Stewart was organized, and a two rotary mill of 75,000 feet daily capacity was erected on the east bank of the river, and was supplied with four large turbine water wheels. The log driving of the Wisconsin and its tributaries was conducted on individual account prior to 1872, when the Wisconsin Boom Company was organized. In 1874 the Wausau Boom company was incorporated, and constructed booms extending six miles up the river, with storage capacity for 30,000,000 feet, its operations for many years including the sorting and handling of over 100,000,000 feet annually; the Wisconsin River Log Driving Company was organized in 1878.

Of the later mills at this point we may mention those of John C. Clark with 100,000 feet daily capacity, having a double and single circular with shingle and planing mill, run by three water wheels from a head of twelve feet. The Wausau Lumber Company, incorporated in 1879, ran a steam engine of 100 horse-power, cutting 12,000,000 to 15,000,000 feet annually. The Stewart mill heretofore mentioned, was rated at 75,000 feet daily, its machinery being two double rotaries with gang edgers, shingle machines and planing mill; its cut in 1880 was 16,000,000 feet of lumber, 8,000,000 shingles, and 1,300,000 lath and pickets. At that date B. G. Plummer's mill on the island, had a double rotary with shingle and planing machinery, with sawing capacity of 30,000 feet of lumber and 50,000 shingles daily. At this time also H. Daniels had a steam shingle mill on the west side of the river, with capacity for sawing 7,000,000 shingles yearly. Clark, Johnson & Co.'s mill was also a first-class mill of 40,000 feet daily capacity. The Marathon Lumber Company built a first-class mill in 1881, whose cutting capacity was rated at 40,000 feet daily. In addition to these, Curtis Bros. & Co., whose main works are at Clinton, Iowa, had a branch manufactory of sash, doors, blinds, etc., upon an extensive scale. Merheim & Kickbush also had a sash, door and blind manufactory.

While it is impossible to particularize all the different operations at this busy point during the rapid extension of the business from the small flutter wheel mills of 1846 to the mammoth concerns of the later day, we find that in 1875 the business at Wausau had grown to a production of about 29,000,000 feet of lumber and 7,500,000 shingles. The mills recorded at that time included those of J. & A. Stuart (built 1852), two circulars, capacity 11,000,000, cut 9,000,000; John C. Clark (1840), one circular, capacity 6,000,000, cut 4,000,000; B. G. Plummer (1843), one circular, capacity 5,000,000, cut 2,000,000; H. Daniels (1864), cut 2,000,000 feet of lumber and 2,500,000 shingles; W. P. Kelley & Bro. (1873), two circulars, capacity 10,000,000, cut 7,000,000; C. P. Hazleton & Co. (1844), one circular, capacity 6,000,000, cut 4,000,000, shingles 5,000,000; Hermann Miller, one circular, capacity 1,500,000, cut 1,200,000. Of these mills only that of W. P. Kelly & Co. returned a cut for 1874—viz., 6,000,000 feet.

In 1880 the manufacture embraced 52,000,000 feet of lumber and 40,000,000 shingles, the operators being: Clarke, Ireland & Co., 13,000,000, shingles 6,000,000; J. & A. Stewart, 17,000,000, shingles 8,000,000; Wausau Lumber Co., 9,700,000, shingles 7,000,000; B. Single, 3,000,000, shingles 1,250,000; L. S. Cohn, 4,500,000, shingles 6,000,000; B. G. Plummer, 5,500,000, shingles 5,000,000. This cut in gross was maintained until 1895 when a manufacture of 57,000,000 feet of lumber and 33,000,000 shingles was reported, the report for 1897 including no lumber and but 5,400,000 shingles. (See sketch C. C. Barker.)

Mosinee or "Little Bull Falls" above Stevens Point, is at the head of slack water. At this point a saw mill was built in 1839 by John L. Moore, which was later known as the mill of Cate (Henry) & Dessert (Joseph), being rented by them in connection with James Etheridge from 1849 to 1852, when they purchased the property. In 1859 Mr. Dessert bought out the others' interests, and extended the business to the proportions which have since marked it as one of the larger operations of this section, it being enlarged in 1874 to a capacity of 85,000 feet of lumber, 50,000 shingles and 25,000 lath and pickets per day, and having a large planing mill in connection; the cut of 1897, however, is reported at only 2,078,000 lumber and 1,600,000 shingles. Lawrence & Peters operated a mill of 4,000,000 feet yearly capacity at this point for many years. The present operators at that point are the J. Dessert Lumber Co. and Gardiner Bros.

At Knowlton in this county Alois Stark and brother began the erection of a mill in 1863, which was burned in 1870, and a small but more modern mill was erected in 1872, the capacity of which was from fifteen to twenty thousand feet per day. Robert G. Wallace built a mill of 25,000 feet of lumber and 40,000 shingles per day at Knowlton in 1871.

Daniels & Hutchinson for many years operated a mill at the village of Hutchinson on the Wisconsin Valley railroad, which originally of but five or six thousand feet daily capacity, was enlarged to a cut of 45,000 feet, with 30,000 shingles. This mill was built in or about 1851, and was later operated by C. Van Buskirk & Bro. with a cut in 1880 of 4,000,000 feet and 1,500,000 shingles. At Spencer, Partridge, Truman & Co. in 1874 built a steam mill which in about a year was burned, and was rebuilt by Blake, Wood & Co. soon after, which was again burned, and was rebuilt by W. J. Clifford; again it was burned in July, 1880, and again was rebuilt. In 1874 Kerr, Keeler & Co. built a shingle mill, which afterward was purchased by L. Richardson. Hall & Co. operated a hardwood saw mill, and Joseph Meyer a water-power mill located on the Little Eau Pleine river. At Mannville in the township of Spencer was the mill of C. J. Kershaw & Co., the shingle mill of Buckstaff Bros., and the planing mill of Tyson & Pierce. B. F. McClellan & Brother of Oshkosh have a mill on the Little Eau Pleine. J. L. Robinson built a mill at Spencer in 1874, with cutting capacity of 30,000 feet of lumber and 40,000 shingles per day. P. A. Thayer built a mill in 1881 with daily capacity of 40,000 feet of lumber and 35,000 shingles. Colby on the dividing line between Marathon and Clark counties is on the line of the Wisconsin Central, and had two saw mills for many years. Weston on the Big Eau Claire river is more generally known by the name of "Schofields," and the mill at this place consists of two rotary saws and shingle machinery, with a daily production of 75,000 feet of lumber, 30,000 shingles and 10,000 lath, operated by the Brooks & Ross Lumber company.

The cut reported in 1880 from the mills at Trappe, Mosinee, Wausau, Schofields and Knowlton aggregate 77,000,000 feet of lumber and 46,000,000 shingles; the cut of 1895 was 74,000,000 lumber and 11,000,000 shingles; that for 1897 but 4,065,000 feet of lumber and 7,878,000 shingles.

In the winter of 1835-6, Alva Culver, with a man named Beman and one or two assistants, got out a raft of square timber at the Dells, and near the mouth of the Lemonweir river, for the construction of government buildings at Fort Winnebago. Lumbering had already been commenced at the Whitney rapids in Wood county. In 1838 Amasa Weir, C. B. Smith and R. V. Allen built a shanty at Dells Eddy for the purpose of getting out timber, which in the following spring was rafted down the Wisconsin and Mississippi rivers, and found market at Galena. This operation was continued for two winters, and was supposed to have exhausted the pine timber of that locality. Mr. Allen made his home at Dells Eddy, and for many years piloted rafts from above through the Dells at periods of high water, his house being said for many years to have constituted the only sign of civilization between Point Bausse and Fort Winnebago, with the exception of the Grignon trading-post. Lumbering in a small way had commenced above the Dells some years previously.

In 1843 Smith & Wilson built a mill at New Lisbon on the Lemonweir river, which was completed and operated in that year. This mill in 1846 was taken by J. H. Findley and William Armstrong, to run by the thousand; these parties subsequently purchased the property upon annual installments, but afterward relinquished it to the original owners, and it was by them sold to a Mr. Wilson, who was one of the original founders and owners of the village plat.

In 1846-7 Amasa Dunn of Portage City located and built a mill on the Lemonweir river at the site of the village of Clearfield, which was operated for him by L. D. Ward and Harris Searles, who in 1850 built a mill on Yellow river in Wood county. This mill after a few years was sold to Andrew Scott and Thomas Buckley (who had previously leased it) and who ran it on their own account. In 1848 Hugh McFarlane, in company with Andrew Dunn, built a mill on the same dam, which was long known as the "Shores" mill, which was also operated by Wood & Searles and later leased to Scott & Buckley. Edward and George Willard, who were among the pioneer loggers and lumbermen, and in 1850 Ross Phillips and John Grant located timber claims on the middle branch of the Baraboo river, on what is now known as "Willard's prairie." In 1856 John Brinknell built a mill at Baraboo, at the east end of the prairie, and in 1857 a mail route being established, the foundations were laid of the village of Elroy, which for some years was one of the outposts of this rapidly settling section.

In 1842 J. B. McNeil, with two men by the name of Elmore and McAllister, after an exploration of the upper waters of the Lemonweir finding sufficient timber to warrant, entered into partnership for the building of a mill at Mauston, which after running it for three years, McNeil and McAllister sold their interests to Joseph Hewlitt, and the firm became Hewlitt & Elmore, and operated the mill until the death of Elmore a year or two later, Hewlitt continuing to run it until his death in 1849, when it passed into the hands of General Maughs of Galena, who operated it until his death in 1863, giving the name of Mauston to the village. Henry Carpenter of Portage City, in connection with an old logger named Randall, who for several years operated on the Lemonweir river, in 1849 built a mill in the town of Kildare, which after one season's operations they sold to Jacob Rogers, who operated it for several years and until the timber of the neighborhood was exhausted.

In 1852 Peter Arntz built a steam saw mill on the Lemonweir two or three miles from the mouth of that stream, which he ran for several years. In 1856 William and D. R. W. Williams built a mill at Werner, which was later operated by McQueen, Davis & Co., whose cut advanced until 1880, when it was reported at 7,000,000 feet. In 1858-9 John Werner built a mill a short distance below the village of Werner on Yellow river, which in 1860 he sold to Reed & Arnold, who operated it for many years.

During 1854-5 the lumber business of the Yellow river, with Necedah as its central point, attracted considerable attention, and in 1856 Ladd & Jenkins built a steam saw mill at that point, Humes & Beckwith following soon after, with a mill on the river two or three miles north of Necedah. The Ladd & Jenkins mill was later sold to T. Weston & Co., who sold to A. H. Cronkhite & Co. Nelson Beckwith soon after built a mill which he sold to George B. Burch & Co., and not long after a planing mill was erected in the village by Fuller & Ray.

Other mills followed the above until in the statistics of 1874 the lumber production at Necedah is noted as 17,500,000 feet of lumber and 31,000,000 shingles, the operators being: George B. Burch & Co. (built 1860), one circular; M. B. Dille & Co. (built 1871), one circular; T. Weston & Co. (1849), two circulars; Bradford, McCoy & Co. (built 1869), two circulars.

Skipping a period of a few years we find this locality in 1880 to be credited with a cut of 43,000,000 feet of lumber and 2,500,000 shingles. In the reports for 1893 the production is held up to 26,376,000 feet of lumber and 10,355,000 shingles, while that of 1896 shows a decline to 2,500,000 feet of lumber and 800,000 shingles. The log stock for Necedah was obtained at the head waters of Yellow river, a distance of upwards of eighty miles, the stream taking its rise in the northwest township of Wood county.

While in a general way the inception of lumber manufacture in Juneau county is treated in connection with the Wisconsin valley, it is not out of place to mention more specifically the earlier mills of the county. The work of Amasa Wilson, C. B. Smith and R. V. Allen, who built a shanty at Dells Eddy in 1838 for the purpose of getting out timber for the lower river market, was supplemented in 1849 by the mill erected by Carpenter & Randall at what later became the town of Kildare. After operating one season they sold the mill to Jacob Rogers, who operated for some years and until the limited pine supply of the neighborhood was exhausted. In 1852 Peter Arntz built a steam saw mill on the Lemonweir about two miles from its mouth. His timber lasted but a few years. Mauston, with the building of the Milwaukee & St. Paul railroad, became quite a lumber manufacturing section, the railroad affording facilities for obtaining stock from too great a distance to be handled by team, while the resources in hardwood timber easily obtainable were very extended and of excellent quality, giving rise to the establishing of factories for the manufacture of farming machinery, while an extensive trade is carried on in railroad ties, piles and cooperage stock. Wilson, Smith and R. V. Allen returned to the Lemonweir in 1842 and engaged in logging, running their stock to New Lisbon, where they built a saw mill in 1843, which in 1846 was sold to J. H. Findley and William Armstrong. In 1847 Andrew Dunn of Portage erected a mill in the town of Clearfield, and as showing the crude conditions of the day, the men employed upon the work essayed to take possession, under the claim that they had just as good a right to it as had Mr. Dunn, who was compelled to resort to force to get possession of his property; the mill was sold in 1851 to Andrew Scott and Thomas Buckley, who ran it for many years. J. & E. Smart erected a mill of 2,000,000 feet annual lumber cut about 1874.

In 1848 John Werner, Jr. and Thomas Weston, with Hon. John T. Kingston and S. E. Miner, organized the firm of T. Weston & Co. to operate on Yellow river, and in the following year built a dam and mill near the mouth of the river. In 1851 Mr. Werner built a steam saw mill near the same point. In 1849 several parties located on the river for the purpose of getting out square timber, which was rafted to the Wisconsin and thence to the Mississippi river for market at the growing towns upon its banks. The business established by T. Weston & Co. was in 1881 incorporated as the Necedah Lumber Company. Bradford, McCoy & Co. built a mill in 1874 of about 6,000,000 feet capacity. In 1880 the production at Necedah was 44,000,000 feet, M. B. Dill being credited with 5,500,000 feet of lumber and 9,000,000 shingles, and miscellaneous mills (not specified in the report), 34,000,000 feet.

George Willard in 1851 built a mill at Wonewoc, having in connection with J. Christie and Archibald Barker been engaged in logging and rafting logs to Sauk City for a few years previous. In 1856 J. M. Brinknall built a mill on the Baraboo river at the east end of the prairie. During the same year (1856), William and D. R. W. Williams built a saw mill at Werner, a village laid out by John Werner, the mill shortly after passing into the hands of McQueen, Davis & Co., whose manufacture reached 10,000,000 feet yearly. In 1859 Mr. Werner built a mill at this village, which in the following year he sold to J. Arnold; this mill had an annual cut of 5,000,000 feet of lumber.

Marquette county is not prominent as a lumber producing section, the first mill of which we find record being erected by the Cochrane Brothers in 1850 for local use of the settlers. This county, while watered by Fox river and its tributaries, has contained but little inducement for the prosecution of the lumber business, its timber resources being principally of hardwood with some scattering pine, mostly norway, and has cut no figure in lumber production.

Lincoln county has been long noted as one of the richest among the pine producing counties of Wisconsin. The Wisconsin river with its many tributaries flowing through Oneida county in the north, passes practically through the center of Lincoln county in its southward course, traversing heavy bodies of pine timber upon not alone the main river, but located upon its affluents, the Noisy, Big Pine, Prairie and Pine on the east, and the Tomahawk, Somo, Spirit, New, Wood, Cooper and Devil creeks on the west, leaving the county near its southeast boundary, not far from which is the city of Merrill, for many years noted for its extensive production of lumber.

The first mill to be erected at Merrill was begun in 1847 by Andrew Warren, who built a dam five hundred feet long and nine feet high across the rapids, which had previously been known as "Bull's Falls," and later christened by Mr. Warren as "Jenny Bull" falls, and later by dropping the word Bull, the locality was known as "Jenny Falls." By the erection of the dam the rapids were obliterated and a magnificent water power established, which has been availed of in the erection of many extensive saw mills. The mill erected by Mr. Warren was not completed until 1849, and was a small and crude mill, running one mulay saw and manufacturing but from four to five thousand feet per day. Its location was upon the site of the extensive and well-appointed mills for many years after operated by the late T. B. Scott and now by the T. B. Scott Lumber Company.

The first logs cut in this locality were put in by O. B. Smith (who with Benjamin Cooper in 1853 purchased the Warren mill) in the winter of 1849, and were sawed at the Warren mill, the lumber being rafted down the river to a market on the Mississippi. Warren ran the mill for several years with indifferent success, the business at that time being in an undeveloped condition, and beset with innumerable expenses to eat up the profits. The logging industry was prosecuted with considerable vigor, there being a demand for logs at several points on the river to the southward. About 1856 the Warren mill property was purchased by Thomas B. Scott and Frank Andrews, the former of whom at a later date built the modern mill which, with capacity for cutting 10,000,000 feet of lumber in 1880, was later increased to 25,000,000 feet of lumber and 20,000,000 shingles.

The first logging firms to do a general logging business beside Mr. O. B. Smith were Newcomb & Averill and Goodrich & Fleming. The first fleet of lumber rafts which were run down the river were started in the spring of 1851, and sold at Galena on the Mississippi. The first payment by Mr. Smith in the purchase of the Warren mill was in 600,000 feet of the best and clearest lumber, the price being $6 per thousand in the raft at the mills. This lumber was run down the river by Mr. Warren at a cost of another $6 per thousand, and sold by him at $28 per thousand, thus netting him the handsome profit of $16 per thousand, or nearly $10,000 above the sale price of the mill. Although the country was still largely occupied by the Menominee tribe of Indians, Holmes Bros. did considerable logging at Eagle river in 1852. Hemlock timber abounded in the county, but was not considered of any account by the lumbermen until within the past few years. So early as 1844 a man named James Moore operated a saw mill at Wausau, eighteen miles further down the river in Marathon county.

We can find no record of a saw mill subsequent to 1849 until 1879, when M. H. McCord and H. E. Howe built a mill in the upper part of the village, which in July 1881 was destroyed by fire, and the partners separating, each constructed a mill on his own account. In the mill built by McCord (now governor of Arizona) he was soon after joined by H. W. Wright, who later, purchasing the McCord interest, established the extensive manufacture since conducted by the H. W. Wright Lumber Company, whose annual production is about 20,000,000 feet of lumber and 20,000,000 shingles. Mr. Howe associated with himself H. H. Chandler and Edward Whitlock, and carried on an extensive manufacture for several years under the name of the Jenny Lumber Co., their cut for 1880 being reported at 7,000,000 feet; this mill has of late years been known as the Gilkey-Anson mill with a cut of 30,000,000 feet of lumber and 12,000,000 shingles. In 1881 Col. C. K. Pier, Charles Mihills and Col. Peter Skinner built a mill on the site later occupied by A. H. Stange, and out of this grew the Merrill Manufacturing Company, with a cut of 23,000,000 feet of lumber and 15,000,000 shingles.

The Champayne Lumber Co. was organized and built a mill of 20,000,000 feet of lumber and 10,000,000 shingles capacity in 1881, and operated until the death of Mr. Champayne and up to 1896, in which year its cut was but insignificant, its timber supply failing.

The Merrill Lumber Company commenced operation in 1881 with E. N. Foster at its head, and has for many years been numbered among the best known mills of this section, with a cut of about 25,000,000 feet of lumber and 15,000,000 shingles.

In the detailed reports of the cut of 1880, only T. B. Scott, 10,000,000, and the Jenny Lumber Company, 7,000,000 feet, are noted. In 1892, the records give the Gilkey-Anson Co. a cut of 30,000,000 with 11,000,000 shingles; Illinois & Wisconsin Lumber Co., 13,000,000 feet of lumber, 5,000,000 shingles; Champayne Lumber Co., 19,000,000 feet of lumber, 8,750,000 shingles; Merrill Lumber Co., 23,000,000 feet of lumber, 15,000,000 shingles; T. B. Scott Lumber Co., 24,000,000 feet of lumber, 17,000,000 shingles; Wolf River Lumber Co., 10,289,000 feet of lumber, 3,712,000 shingles; H. W. Wright Lumber Company, 19,000,000 feet of lumber, 17,000,000 shingles; A. H. Stange, 12,623,000 feet of lumber, 9,000,000 shingles—a total for the year of about 150,000,000 feet and 86,000,000 shingles. This was the heyday of lumber manufacture at this point, although most of the firms enumerated above were able to maintain their average up to 1896, in which year the aggregate cut fell below 100,000,000 feet of lumber and 30,000,000 shingles, and the future years are destined to see a still more rapid decadence, as in common with all other sections of the State, the pine forests are rapidly disappearing in the country upon which Merrill has depended for its supplies, although railroad facilities are available for bringing logs from the forests of northern Michigan, a practice already instituted to some extent.

Until the advent of the railroad into this section of the State, river rafting was the only means of reaching a market, but since 1880 the facilities of the Wisconsin Valley division of the Chicago, Milwaukee & St. Paul road has led to piling and seasoning, as well as largely, the dressing of the product, with available markets to all points in the nation. The total production at Merrill is included in our estimates of railroad production, with reasonable allowance for the period antedating the era of rail carriage.

Tomahawk, located in the northern part of Lincoln county, has also for many years enjoyed the reputation of a prominent lumber producing point. It is located on the Wisconsin river at its confluence with the Spirit, Somo and Tomahawk rivers at a point known locally as "Grandfather Falls," and its log supply is gathered from the forests bordering upon those streams. At this point a dam was erected by W. H. Bradley in connection with the Chicago, Milwaukee & St. Paul Railroad company, the main portion of which is 720 feet in length, with an east wing of 1,400 feet and a west wing of 1,150 feet, backing the water to a head of over twelve feet into an area of over 8,000 acres, extending eleven miles up the Somo river and affording ample boomage for logs, and steamboat navigation for many miles. Here Mr. Bradley erected a saw mill of 15,000,000 feet of lumber and 30,000,000 shingles yearly capacity, the operation being known as the Tomahawk Lumber Co., and was soon after followed by the Somo Lumber Co., with capacity for cutting 7,000,000 feet of lumber, and Cram Bros. with a mill of like capacity, and later by the mill of Alexander Rogers (formerly of Muskegon), 5,000,000 feet, and the Bay Mill Lumber Company with a cut in 1895 of 5,000,000 feet of lumber and 5,000,000 shingles. The annual cut of Tomahawk for some years past has been from 60,000,000 to 75,000,000 feet of lumber and 25,000,000 shingles. With the rapidly decreasing supply of pine the mills of Tomahawk and other sections of Lincoln county have extensive resources in the large bodies of hardwood timber and hemlock, which may for many years be available.

The moving spirit of Tomahawk in its inception and development is William H. Bradley, a Connecticut Yankee by birth, but whose parents removed to the state of Maine when he was but a boy. His father was a lumberman, and it was but natural that the boy should take up the same occupation, when in the early fifties the family removed to Michigan. About 1859 Mr. Bradley settled at Milwaukee, and purchasing from time to time large bodies of pine timber, became known as one of the most extensive operators in the manufacture and handling of lumber. In 1886 he began operations at Tomahawk, and has built up a thriving city of about 3,000 souls, who are surrounded by all the conveniences of schools, churches, electric lights and other concomitants of a thriving town.

Lincoln county boasts upon its streams no than sixteen valuable water-powers, which are utilized in the running of saw mills, paper (pulp) mills and kindred manufactures, while the surround country presents a fair field for the agriculturist of the future. Among the industries at Tomahawk, we may mention: The North Muskegon Box Factory Co., Tomahawk Lumber Co., Bay Mill Lumber Co., Somo Lumber Co., Farmers' Lumber Co., Tomahawk Pulp and Paper Co., Tomahawk Land and Boom Co., Rice River Lumber Co. and Rodgers Iron Mfg. Co. (with saw mill).

With a growing decadence of pine supply the hemlock and hardwood timber of Lincoln county is assuming a position of importance, and is entering largely into the lumber statistics. George E. Foster & Co. of Merrill in 1893 opened a hardwood office at Merrill in connection with the handling of pine lumber, and about twenty or more mills in Lincoln and adjoining counties are engaged in hardwood manufacture, their product being largely handled by this firm, and by them shipped to Chicago and other localities, where large quantities of hardwood of all kinds find a steadily increasing market. In 1893 C. R. Norway and John R. Babcock purchased the plant of the Wolf River Lumber Company and erected a box factory and planing mill, for the manufacture of boxes and specialties of every character

Thomas B Scott

which are made from lumber, thus utilizing a vast quantity of a lower grade of lumber, the shipment of which as lumber could yield no profit, but which in this closer manipulation becomes an important element of lumber production.

The first lumbering that was done north of the mouth of the Tomahawk river was in the winter of 1857 and 1858 at Rhinelander. In the fall of 1857 Helms & Co. cut out the "tote" road from Grandfather Bull's falls to Eagle lake on the Eagle river; the crew that cut out this first road, arrived at Eagle lake on New Year's Day, 1858, and shortly after commenced to cut and bank logs. Helms & Co. were from Stevens Point, and they banked that winter about 20,000 logs and drove them to Mosinee, Wis., to be sawed. In the winter of 1859-60 Hurley & Burns commenced to log on Eagle river, as did Edwards & Clinton, both parties having mills below Grand Rapids and driving their logs to their mills. In the winter of 1882-3 Tolman, Conro & Co. (now Conro & Sons) commenced to build a mill, and about the same time Brown Bros. (now Brown Bros. Lumber Co.) also began to build, both mills being ready for operation in the following summer. The Baird & Robbins (now Brown & Robbins Lumber Co.) mill was built in 1887, and in 1888 the Olsen & Fry (now George Clayton) mill was built, as was the Stevens mill. In 1889 the Rhinelander Lumber and Shingle Company's mill was erected, and ran until 1893, when it was burned and not rebuilt. In 1889 the "Soo" Lumber Co.'s mill was erected, and burned in 1895, not being rebuilt. In 1890 the Buttrick mill (now H. J. Falls & Co.) was built, and burned in 1897, not to this writing being rebuilt. For the work of 1898 but four mills give sign of preparation, of the eight mills which at one time were the pride and stay of Rhinelander. The Kirk Manufacturing company operate one of the largest box factories of the northwest in the manufacture of packing cases for their extensive soap works at Chicago, and of this factory A. G. Hunter has for many years been in charge.

Hon. Thomas B. Scott (deceased).—Scotland has supplied the United States the material out of which many of her useful and prominent men have been developed. The sturdy characteristics which have made the people of that country so noted, and which have brought them to the front so rapidly, will be distinctly traced in the career of Hon. Thomas B. Scott, "the father of Merrill," whose birth occurred in Roxburghshire, Scotland, February 8, 1829. The life of this honored citizen presents an example of usefulness, the contemplation of which should serve as an inspiration to those who seek to deserve respect and love while living and veneration after death. Until the age of eleven years Mr. Scott attended the schools in his native country, and then, with his parents and his brothers, William, James, John and sister Elizabeth, came to this country. Soon after, the parents located at Sing Sing, New York, and there Thomas B. attended school for a few years. However, when but thirteen years old he began clerking in a grocery store, and was thus employed for about four years. In the year 1846, after reaching his seventeenth birthday, he decided to go west. Reaching Wisconsin he located at Dekorra, where later he established a general store. Subsequently he moved to Grand Rapids, Wisconsin, where he opened a store for the supply of the lumbermen whose operations centered in that locality. Here it was that his active business career really began. Mr. Scott's father died at Sing Sing, New York, in 1873, but his mother had died as early as 1842. The children had separated, John going to California in the fifties and dying there, and William was for many years a well-known resident of Grand Rapids, Wisconsin. About 1871 Mr. Scott purchased the old Andrew Warren mill, which was started in 1847 and completed in 1849, at Jenny, now the prosperous city of Merrill. This small mill he modernized and rebuilt, until in 1880 it reported a cut of 10,000,000 feet of lumber and 2,000,000 shingles. With modern improvements added from time to time as they appeared, and with rail facilities for a more ready distribution of lumber than was afforded by the rafting system previously in vogue, the mill cut by 1886 had been increased to 25,000,000 feet of lumber and 20,000,000 shingles. It was in the midst of the enlarged activities indicated by this expansion of mill output that Mr. Scott was called to his rest, his death occurring October 7, 1886. Among the immense concourse of citizens that followed him to his last resting place were many prominent people from all over the State. His life's work was finished, its fruits garnered, and only the record of its incidents remained to tell the story of worthy success in living. The business established by Mr. Scott became incorporated in 1883 as the T. B. Scott Lumber Company, and has so continued operations. His eldest son, Walter A. Scott, succeeded to the presidency after the death of his father. Mr. Scott did not confine his energies to the lumber business alone. He was pre-eminently a man of affairs and took an active part in the development of not only Merrill but of the county and state. During his residence at Grand Rapids he served in the various capacities of county clerk, county treasurer and for five terms as state senator. He was a staunch Republican and was frequently spoken of and was considered the most available candidate for governor of the state and as one of its representatives in congress. However, his business interests were so exacting that he would never consent to the use of his name in those connections. He served his party as a delegate to state and national conventions, going to the latter as delegate at large from the State. He was the first mayor of the city of Merrill, and held the office several terms. During his last two terms in the state senate he was by unanimous vote chosen president pro tem. of that body. Mr. Scott was never frivolous, never wasted time, but on the contrary was careful, conscientious and vigilant in his legislative, as well as in the pursuit of his business, interests. He was one of the best known men in the State through his important business enterprises, and the prominent position held by him in social and political life. He was a man of kindly impulses, stern integrity, with abnormal capacity for business, qualities which gave him great influence, and which it gave his political party delight to honor. Mr. Scott was the prime mover in the extension of what is now the Chicago, Milwaukee & St. Paul railroad from Wausau to Merrill, and which was subsequently extended north through Lincoln county to the center of Oneida county resulting in the development of a large section of country which was without those facilities which are requisite for extended settlement, while opening up facilities and outlets for the utilization of large tracts of timber hitherto unavailable. This road was originally known as the Wisconsin Valley road until its acquirement by the C., M. & St. Paul railroad and incorporation into its vast system. During the earlier years of his residence in Merrill Mr. Scott was actively connected with the Boom Company, which was organized when rail facilities were extended to Merrill. In his long and eventful business career he established and maintained river improvements, saw mills, a railroad, a bank and heavy transactions in pine lands, in all of which not a breath of suspicion ever rested against his character. By his sagacity and steadfast attention to business he amassed a fortune of $1,000,000. His benefactions, public and private, were numerous. He left $10,000 to the city of Merrill for establishing and maintaining a free public library, and $5,000 to the city of Grand Rapids for the same purpose.

Mr. Scott married Ann E. Neeves and to them were born the following children: Walter A., Thomas B., Cassie M., and one that died in infancy. Of these, Cassie married Frederick W. Cushing and resides at Highland Park, Illinois; Walter A. married Nellie Wiley of Merrill, Wisconsin, and has one child, Harold. Walter A. was trustee of his father's as well as his mother's estate. Mrs. Scott died December 3, 1887. Walter A. has, in closing up his father's estate, had much to do with mills and pine lands, and is familiar with all its details. Up to 1892 he was president of the T. B. Scott Lumber Co., and active in the business until 1895. He owns the Marshfield & South Eastern railway, 34 miles in length, and large landed interests of pine and hardwood in Wisconsin, to which he has devoted much of his time. Thomas B., Jr., is president of the Northern Exchange Bank of St. Paul, and secretary and treasurer of the T. B. Scott Lumber Company of Merrill, and one of the well-known men of the northwest. He is also interested in various enterprises in his section. On the 6th of June, 1889, he married Miss Mary Lee Clair, of Nashville, Tennessee, and in September of the same year went to St. Paul where he has since resided. To them have been born two children, Ann Lee and Thomas B., Jr.

Henry W. Wright.—This gentleman is one of the foremost business men of Wisconsin, and is honored alike for his admirable record in this respect and as a defender of the union during the bloody civil war. He was born in Racine, Wisconsin, March 10, 1844, and was earnestly pursuing his studies when the civil war opened. In 1862 his maternal uncle, Albert Knowles, who was a second lieutenant in Company K, Seventh Missouri cavalry, came to Racine on a visit, and used his influence to induce his nephew to join his company, and Mr. Wright became a member of the same at Macon, Missouri. Three months later the regiment was sent to Independence, Missouri, thence to Kansas City, Sedalia and Springfield, and Mr. Wright saw much hard service and fighting during the two and a half years that he was in the army. The First Missouri cavalry was finally consolidated with the Seventh Missouri cavalry and was thereafter known as the First Missouri cavalry, and of Company H, of this regiment Mr. Wright became second lieutenant February 22, 1865, having been previously made sergeant-major of his regiment at Pine Bluff, Arkansas, where he spent the winter of 1863-4. He received his final discharge as second lieutenant of Company H, First Missouri cavalry, May 30, 1865, and returned home with the consciousness of having served his country with the utmost faithfulness and in a manner to reflect the highest credit upon himself. He was in the engagements at Prairie Grove and Fort Smith, Arkansas, Major-General Herron commanding, and was also at Helena, Little Rock, Camden and other important points. After the termination of hostilities he was employed on the Western Union railway in different capacities for three years, then became accountant for Chauncey, Lathrop & Co., in whose employ he remained for some two years. The three subsequent years were spent as bookkeeper for the J. I. Case Threshing Machine Company, after which he began business for himself as a manufacturer of sash, doors and blinds at Racine. On April 5, 1877, he received the appointment of postmaster of Racine from President Hayes, but in October, 1880, he removed to Merrill, where he formed a partnership with M. H. McCord in the saw mill business. About one year later Mr. McCord retired and the H. W. Wright Lumber Company was formed, which has always held high rank among its kind in the Wisconsin River valley. The plant of this company is modern in every way, and has a capacity of 125,000 feet daily. All varieties of lumber are manufactured and their sash, door and blind factory is one of the best in the State and is strictly modern in all its appliances.

Mr. Wright is a model citizen, and has always been a friend to the laboring man and his interests. He has ever been a staunch Republican and is a Mason of high degree. November 1, 1872, he was united in marriage with Miss Carrie Buchan, a native of Dover, Racine county, Wisconsin, of Scotch ancestry, many members of which family have been noted, off and on, in the medical profession for more than two centuries. Mr. and Mrs. Wright have three children: James A., Fred and Nettie. Mr. Wright's parents, Thomas W. and Angelina (Knowles) Wright, the former a native of Manchester, England, and the latter of Onondaga Hollow, near Syracuse, New York, moved to Racine, Wisconsin, in 1838, and here spent the remainder of their lives. Mrs. Wright was descended from one of the early settlers of the Mohawk valley. Henry W. Wright has always been public-spirited and alive to the best interests of his section, and did effective service as a member of the board of county supervisors, as alderman of Racine, and as secretary of the building committee of the city, during which the erection of the county court house was consummated. His knowledge of the details of his business has always been so thorough and comprehensive that several young men, at various times, have placed themselves under his instructions and have received their business training from him.

L. N. Anson.—To the student of human nature there is nothing more interesting than the analysis of the life history of a self-made man, and the study of the characteristics which have enabled him to pass many others on the highway of life and to reach a position of importance in the community. This is particularly true of L. N. Anson, who is a prominent member of the well-known lumber firm known as the Gilkey, Anson Co. Mr. Anson is one of the native sons of Wisconsin, born in Portage county, July 3, 1848. His father, Jesse Anson, was a native of New York and a descendant of a prominent old New England family. Jesse Anson was left an orphan at an early age, and while yet young came west and located in Illinois, where he met and married Miss Maria Sands, a native of the Empire State and, like himself, a descendant of one of the colonial families of New England. In the year 1843 they moved to Wisconsin, and located at Plover, where they ever after resided and where they were well and favorably known. For three years the father fought for the Union in the Fifth Wisconsin infantry. His death occurred in 1894. His wife survives him, as do the four children born to their union.

L. N. Anson secured a good, practical education in the common schools. In the month of March, 1865, he enlisted in the Fifty-second Wisconsin volunteer infantry, and served in Missouri until the close of the war. Returning home he was engaged in various occupations for some time, but seeing the advantages to be derived from a good business education, he took a course at the Bryant & Stratton Business College of Chicago. Soon after this he embarked in the business which he has followed with so much success ever since.

In the year 1883 Mr. Anson went to Merrill, Wisconsin, and formed a copartnership with George F. Gilkey and John Landers, the firm being known as the Gilkey-Anson Co. They purchased the mill which with improvements and modernizing they have since owned and operated, and which is to-day one of the largest and best in the northwest. Mr. Gilkey was a native of Holton, Maine, and from his seventeenth year had been in various ways connected with the lumber business. His health failed in 1888, and since then he has done but little active business. His home is at Oshkosh, Wisconsin. Mr. Landers was a thorough woodman, and has always been an active and valuable member of the firm. Few men engaged in the lumber business have a higher standing for character, ability and enterprise than Mr. Anson. A hard worker and close student of conditions and details, he has achieved success by honest work, and his clean methods, sound judgment and unusual capabilities have won the confidence and respect of all. The large plant of which he is virtually the head, he is thoroughly familiar with, and it has been very largely owing to his correct business methods and judgment that the firm is one of the best known and most substantial in the country. Their mill is strictly modern, with band, circular and gang saws, and with a ten-hour daily capacity of one hundred and fifty thousand feet.

Mr. Anson selected his life companion in the person of Miss Hannah A. Meehan, a native of Canada, and their marriage was consummated December 29, 1872. They have two children, George M. and Mary T. Mr. and Mrs Anson take an interest in all things pertaining to the welfare of their children, or the community in which they reside, and are to-day bathed in the sunlight of prosperity that bids fair to last always. They have nicely but practically educated their children. In religion and politics Mr. Anson is liberal in his views. Strong and honest in his purpose, generous and quick in his sympathies, in all his relations, whether in business or society, Mr. Anson's life is regulated by the highest moral standard.

W. H. Bradley.—Among the many successful men whose success in life and prosperity are due to their enterprise and industry stands the name of W. H. Bradley, one of the prominent lumbermen of Wisconsin. He is a native of the Pine Tree State, born at Bangor, Maine, February 25, 1838. In the year 1855 he came west and during the following winter was on the Au Sable river in Michigan, a tributary to Lake Huron. In the year 1860 he commenced buying timber on Red river, tributary to Wolf river, and hired it sawed at Oshkosh. In 1865 he went to Muskegon, Michigan, and operated on the Muskegon, Manistee and Pere Marquette rivers. Previous to this, in 1862, he, with others, built a mill at Oshkosh, and in 1864 O. P. Pillsbury & Co. erected another mill at Muskegon. In the year 1867 he erected another mill at Manistee in connection with Wheeler, Hopkins & Company. He returned to Wisconsin in 1877 and located at Milwaukee, and from 1880 to 1886 Bradley Brothers & Co. operated on the Chippewa river, the latter part of the time being under the name of the State Lumber Company of which he was a member, he also operated on the Wisconsin river waters under the name of Bradley Company and the United States Lumber Company, with principal office at Tomahawk, Wisconsin, being president of the above named companies. He and his brother, J. W., and a cousin, H. R. Bradley, are the owners of three mills at Tomahawk: these mills have a capacity of 170,000 feet in ten hours. Another mill was sold in 1896 to the Rice River Mill Co. These companies are the owners of considerable stumpage, aggregating 300,000,000 feet, tributary to Tomahawk. Mr. Bradley is interested in twenty-one yards on the "Soo" railroad and two on the Chicago, Milwaukee & St. Paul. He has built three branches of railroad connecting with the Chicago & Northwestern railroad, the "Soo," and the Spirit River road, aggregating thirty-five miles of road. At the present time he is shipping to eleven states, over the C., M. & St. P., the C. & N. W., "Soo Line," and also the Wisconsin Central, Toledo & Ohio, Wisconsin & Michigan and their car ferries.

Wide-awake and enterprising, Mr. Bradley is widely known throughout the northwest in his line of business.

George Ellery Wood has for the past forty years been prominently connected with the lumber development and business of the northwest. Mr. Wood was born at East Douglas, Worcester county, Massachusetts, January 11, 1837, of an ancestry dating to the earlier settlement of the country, his great-grandfather being one of the first to settle at Grafton, Massachusetts, where he held important positions in the town councils, and was for several years a member of the colonial legislature. George E. Wood spent his boyhood at Worcester, Massachusetts, graduating at its high school. In 1855 his parents removed to Moline, Illinois, where George entered the employ of Burnell, Gillette & Co., lumber manufacturers at Davenport, opposite Moline (see history of the "tri cities"). The death of his father in 1856 threw the young man upon his own resources, but his apprenticeship with Burnell, Gillette & Co. well fitted him in 1859 to engage in the lumber business on his own account, and he opened a yard for the wholesaling and retailing of lumber at Davenport, which was at this time beginning to develop as a prominent lumber center. His business prospered, and taking rank among the leading citizens of the town, he in 1865, became one of the organizers of the Citizens' National Bank of Davenport, and was elected to a directorship, a position which he held until his removal to Chicago in 1869, to become a member of the firm of Kelley, Wood & Co., with an extensive wholesale lumber business, their yard being located on West Twenty-second street, corner of Center avenue. In 1871 the firm purchased the saw mill at Muskegon, known as that of Addes & Watson, and for the next six years carried on an annual manufacture of from seventeen to twenty million feet of lumber, acquiring large bodies of pine lands on the Muskegon river and its tributaries, the product of the mill being shipped to the company's yard at Chicago. Of this operation Mr. Wood was in charge at Muskegon, and upon the dissolution of the firm in 1877 Mr. Wood took the mills and property at Muskegon and continued the manufacture at that point, relinquishing the yard business, and selling his stock by the cargo to wholesale dealers at Chicago and elsewhere. In 1890 his own timber supply being exhausted, and the resources of the Muskegon forests being greatly diminished, and largely absorbed in the holdings of other manufacturers, making the acquirement of desirable stock difficult, he decided to seek other and more desirable fields of operation. The plant of the mill consisted of one circular saw mill and one gang, and its product for the eighteen years of its operation aggregated not far from 300,000,000 feet of sawed lumber.

The extension of the railroad systems of Wisconsin was now attracting the attention of lumbermen to the forests of that state, which being located away from streams, had previously enjoyed little favor from the absence of shipping facilities, and Mr. Wood's attention was directed to the southern part of Oneida county, Wisconsin, where purchasing large tracts of land, he established the town of Woodboro on the "Soo" road, and there erected his mill, removing the machinery from Muskegon for that purpose. Saw mill machinery had now reached its highest point of development, and while retaining the circular, he added a band mill, and fitted the mill with a full steam log deck, edgers, trimmers, etc., to the most modern standard, including shingle and lath machinery, giving it a yearly capacity of 20,000,000 feet of lumber, 5,000,000 shingles and 5,000,000 lath, adding a full complement of planing mill machinery for dressing stock to such conditions as was demanded by the retailer, to whom the extensive connections of the "Soo" road gave him access in all parts of the country. The business upon removal to Woodboro, was incorporated under the name of the George E. Wood Lumber Company, of which Mr. Wood was president, and his son William F. Wood, secretary and treasurer. The principal office of the company remains at Chicago, which has been the headquarters and business location of Mr. Wood since his acquirement of the property in Muskegon in 1877.

Mr. Wood has been recognized as one of the most reliable and clear-headed as well as active members of the fraternity of lumbermen, and none have commanded higher respect as a merchant and citizen. He was for some years a director in the American Trust & Savings Bank of Chicago, after its organization in 1887, and was esteemed a prudent and wise counsellor in this and other organizations with which from time to time he has been connected Although never taking an active part in the affairs of the Lumberman's Exchange of Chicago he was for many years a member, contributing to its welfare and advancement.

Mr. Wood was married in 1860 to Miss Harriet L., daughter of Lund Lovejoy, Esq., of Lowell, Massachusetts. Mrs. Wood died in 1886, leaving one son, William F. (mentioned above), and one daughter, Anna L., wife of Frank R. Meadowcroft of Chicago. In 1889 Mr. Wood was married to Mrs. Caroline M. Kelley, daughter of the late Seth Marshall of Painesville, Ohio. While of a social nature, and a member of the Union League and Calumet clubs of Chicago, Mr. Wood has never taken an active part in political or club matters, his domestic tastes leading to the higher enjoyments found in the home circle.

William F. Wood, son of George E. Wood and for many years past associated with the George E. Wood Lumber Co., was born at Davenport, Iowa, September 24, 1862, and was educated at private schools, supplemented by a military academy at Sing Sing, New York.

In 1881 he entered the employ of C. H. Bogue & Co., lumber dealers at Galesburg, Illinois, and after two years' service, became a member of the firm of Richards, Hanks & Co., lumbermen, on West Twenty-second street, Chicago. In 1885 he entered his father's employ in the care of the office work, remaining until the shutting down of the Muskegon mill in 1889, when he became a director, and was elected treasurer of the Kelley, Maus & Co. Hardware and Iron Co. In 1893 his father, having begun new lumber operations at Woodboro, Wisconsin, William F. was elected secretary and treasurer of the George E. Wood Lumber Co., a position which he still holds. He was married in 1889 to Miss Augusta Rawson of Hinsdale, Illinois, and has one child, a son. As the office man of the George E. Wood Lumber Co., as well as in his previous occupation, he has won the confidence and esteem of the fraternity of lumbermen by whom he is considered one of the brightest of the latter-day school of the profession. He is a member of the Union League club, and is held in the highest esteem in the business and social circles with which he is connected.

Everett Wellington Brooks.—Among the most prominent and successful lumbermen of Chicago and manufacturers of Wisconsin, is Everett W. Brooks. Mr. Brooks was born at Old Cambridge, Massachusetts, December, 1840. His father, who was Luther Brooks, was an old-time lumberman of East Cambridge. Young Brooks entered the store of a firm in Boston engaged in general business, and in 1861 was sent west to settle up a large claim which was held against a mercantile concern at Manitowoc, Wisconsin. Finding that the assets of the firm consisted largely of saw logs, Mr. Brooks chartered two saw mills in which he manufactured the stock and marketed it in Milwaukee and Chicago. This occupied about ten months of his time, but being successfully completed Mr. Brooks returned east and entered the navy, receiving the appointment of paymaster, in which he served until the close of the war, receiving special mention in official reports for gallant conduct. In July, 1866, he came to Chicago on leave of absence and assumed the agency of the business of the Boston house of Loud, Priest & Sheppard, which he ran successfully for three years, being in the meantime mustered out of the navy. On the organization of the Ford River Lumber Company he was elected secretary and manager at Chicago, a position which he filled for about six years. Owing to the failing health of his wife, the effect of a temporary change of climate through his six months' residence in the east was tried, under a year's leave of absence. The slow motion of the business style of the east not suiting the energetic young man, who had become thoroughly imbued with the driving and pushing spirit of the west, he returned after an absence of but six months, and organized the firm of E. W. Brooks & Co., with Mr. John D. Ross (former manager of the Ford River Lumber Co.) as partner, which subsequently became the firm of Brooks & Ross Lumber Company and purchased the C. P. Hazleton mills at Schofield, Wisconsin, Mr. Brooks remaining in Chicago and Mr. Ross taking charge of the mills and necessary operations in the woods. The firm subsequently acquired by purchase a large mill plant at Merrill, Wisconsin, and also purchased a large tract of timber land on which, at one point, the town of Harrison with an extensive saw mill and shingle mill, together with planing mill was erected, while at another point five miles distant the town of Parish was located, with another extensive mill plant. The operations of the house in its various locations embraces the manufacture of from 80,000,000 to 85,000,000 feet of lumber annually, besides shingles and lath. Mr. Brooks is president of the Brooks & Ross Lumber Company and vice-president of the Prairie River Lumber Company at Parish, and of the Wisconsin Valley Lumber Company at Harrison. In 1888 the firm discontinued the yard business which to that time had been carried on in Chicago, the business being concentrated at the mills, Mr. Brooks having a general office in Chicago, it being for several years located in the "Rookery" building at the corner of La Salle and Adams streets.

In 1889 the firm purchased the Comstock mill at Merrill, Wisconsin, which in 1892 they sold to the Illinois & Wisconsin Lumber Co. In 1897-8 the firm built a new mill at Schofield, Wisconsin, containing one band saw, one band resaw, gang edgers and a full steam log deck, combining all the latest improvements in saw mill machinery, with capacity for the manufacture of from eighteen to twenty millions of feet per year.

The yearly capacity of the various mills with which Mr. Brooks and his company have been and are connected is as follows, viz.: Schofield mill, 24,000,000 feet of lumber, 3,000,000 shingles; Comstock mill, 22,000,000 feet of lumber, 5,000,000 shingles; Harrison mill, 20,000,000 lumber, 4,000,000 shingles; Parish mill, 20,000,000 lumber, 4,000,000 shingles; new mill at Schofield, 20,000,000 feet of lumber, 5,000,000 shingles.

No man could have built up the extensive business which is now comprised in the operations of Mr. Brooks did he not possess, not only the highest order of business talent, but as well a reputation for honesty and integrity. During all the passing years Mr. Brooks' word among business men has been as good as his bond, and as was remarked by a gentleman to the author of this sketch: "I borrow no trouble in my dealings with Mr. Brooks for I always find him ready to accord to me all that he would ask of me under the same circumstances."

John D. Ross of the firm of Brooks & Ross of Chicago, Illinois, and Schofield, Wisconsin, and of the Ross Lumber Co., Arbor Vitae, Wisconsin, was born at Lancaster, Glengary county, Canada, in 1843 and there received his early education. In 1867 he went to Ford River, Michigan, as bookkeeper for the Ford River Lumber Co., of which in 1869 he was made manager, a position which he held until 1882, when he came to Chicago and became a member of the E. W. Brooks Lumber Company, one of the largest among the many extensive lumber houses of Chicago. In 1883 the company purchased the mill and plant of C. P. Hazelton at Schofield, Wisconsin, and Mr. Ross removed his family to Wausau, Wisconsin, which became the manufacturing headquarters of the company. In 1889 the company purchased the Comstock mill at Merrill, which also came under the able supervision of Mr. Ross, and about this time erected a band mill at Harrison, and another at Parish, Wisconsin, for the manufacture of a large tract of pine timber purchased on Prairie river, where they continued to operate until the exhaustion of the stock at Harrison in 1894, and that of Parish in 1897. In 1892 the Comstock mill was sold to the Illinois & Wisconsin Lumber company.

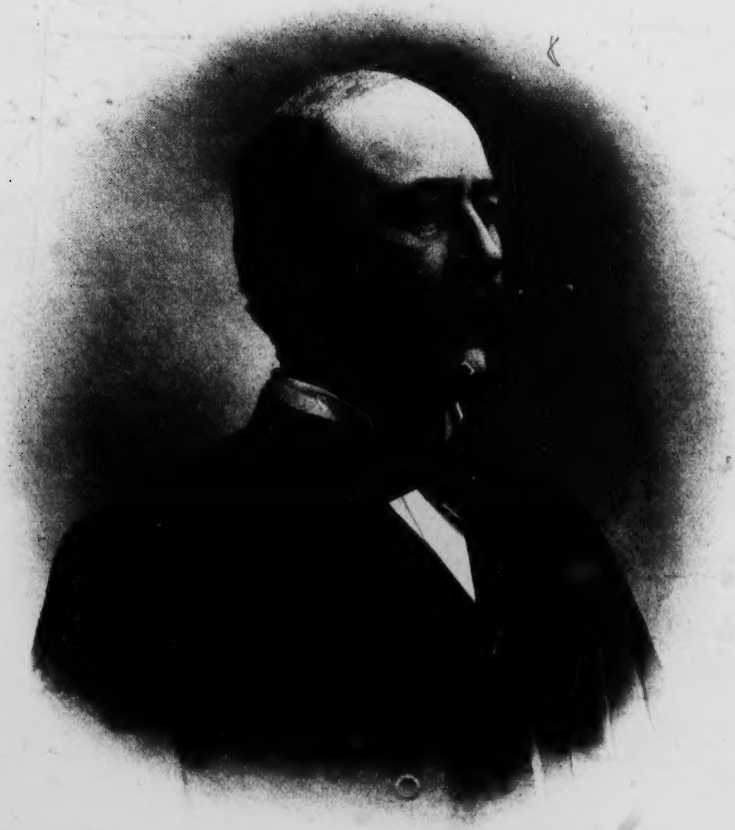
In 1894 Mr. Ross erected a band mill at Arbor Vitae, Wisconsin, with capacity for cutting 40,000 feet per day, which is still in operation. In 1897 the Brooks & Ross Company built a new mill at Schofield, containing a band and band re-saw, with gang edgers, and a full complement of the most modern appliances for the economical manufacture of lumber from logs which under modern methods of lumbering will not only be picked up on the river in its now greatly curtailed supply, but will be transported by rail from northern Wisconsin and the upper peninsula of Michigan by which a manufacture of from eighteen to twenty million feet per year is anticipated for several years to come, the rail facilities extending into many diverse sections of timber supply. Of the various operations thus carried on under the direct supervision of Mr. Ross, as manager of the manufacturing department of the Brooks & Ross Lumber Co., the Schofield mill was rated at a manufacture of 24,000,000 feet of lumber and 3,000,000 shingles yearly; the Comstock mill, 22,000,000 feet of lumber and 5,000,000 shingles; the Harrison mill 20,000,000 feet of lumber and 4,000,000 shingles and the Parish mill 20,000,000 feet of lumber and 4,000,000 shingles. From this may be drawn the contrast between early customs of lumbering wherein a cut of eight or ten million feet yearly was esteemed most extensive, but which when compared with more than 150,000,000 feet per year, the product of the Brooks & Ross Lumber company assumes an insignificant position.

Only a man of the many years of practical experience of Mr. John D. Ross would be capable of such efficient management as has characterized the administration of Mr. Ross in these vast operations, exceeded by those of but few of the many large lumbering companies of the land.

Rib River Lumber Co.—This flourishing and well-established enterprise had its origin in the year 1886, being started by D. D. Flanner. He first purchased 25,000,000 stumpage and hired it logged and sawed at Flanner's Station, which is ten miles south of Wausau, Wisconsin. He continued buying logs and hiring them sawed until 1892, at which time he changed his location to Rhinelander and incorporated the Rib River Lumber Company. This company has a capital stock of $100,000, and its officers are as follows: D. D. Flanner, president; W. D. Brown, vice-president, and C. F. Smith, secretary. Soon after locating at Rhinelander the company purchased 50,000,000 feet of timber in the Wisconsin river valley. In April, 1896, D. D. Flanner and W. D. Brown purchased the stock of C. F. Smith, and the following year they bought a planing mill. They cut and handle their logs at the rate of 15,000,000 per year, and also continue to buy logs and also lumber in round lots. The members of this company are wide-awake, thorough-going business men and are well known in the lumber trade.

Besides their plant, they are interested in one retail yard, and although they make a specialty of eastern trade, they also ship much lumber toward the west, one man being kept west of the Mississippi river, one in Illinois and one in Wisconsin.

Henry J. Fall.—The native of the Empire state has always been a potent element in the communities wheresoever chance has placed him, and but few of them have shown more intelligence, business ability and push than Henry J. Fall, the successful lumberman and saw mill man of Rhinelander. He owes his nativity to Onondaga, New York, where he was born in the year 1845, and while growing up his days were spent in assisting his father in the tannery, on the farm and in attending the district schools. When the great war between the north and south broke out he became a member of the Second Pennsylvania Sharpshooters and was on parole duty in Virginia and Tennessee, but in 1863 was honorably discharged for disability. He soon came west to seek his fortune, and his first experience in the work of lumbering and saw-milling was obtained at Taylor's Falls, Minnesota, and it was not long ere he was placed in charge of the mills and logging camps. Four years later he leased a water mill at Balsam Lake, Wisconsin, which he operated for about five years, and in 1878 he became part owner in a portable mill near Clear Lake, Minnesota, and as a member of the firm of Fall & Jones did a good business for about one year. In 1879-80 he became interested in the firm of Glover & Johnson at New Richmond, Wisconsin, and also in the Will River Lumber Co., his connection with both resulting well financially; but in 1885 he formed a partnership with R. H. McCoy, and retired from his New Richmond enterprise. He and Mr. McCoy built a good mill at Lakeland, Minnesota, conducted it with marked success up to January 1, 1893, at which time Mr. Fall sold his interest in the business to his partner and removed with his family to Hudson, Wis., but in the following May came to Rhinelander, Wis., and purchased the Rib River Lumber Co.'s mill, which he has operated with excellent financial results up to the present time, having for a partner W. H. Gilligan since 1894. This mill has a capacity of 100,000 feet in ten hours, and although the proprietors cut many logs of their own, their work is mostly of the contract order. An enormous number of shingles are cut by this firm annually. Although lumbering has been Mr. Fall's leading pursuit through life, he was for a short time engaged in the mercantile business at New Richmond as a member of the firm of Fall & Thompson, and in this enterprise he prospered also. His activity and business ability has earned for him a fortune and he is a credit to the lumbering interests of the State. He usually votes the Democratic ticket, but is rather independent in regard to party lines and he usually supports the one he considers the best man. In 1866 he was married to Miss Maggie Manning of Taylor's Falls, Minn., and in 1881 was left a widower. In 1882 Miss Ida Thompson of Minnesota became his wife. He is a Scottish Rite Mason, a Noble of the Mystic Shrine, was Generalissimo of the Wisconsin commandery for



H W Wright

three years and has held many offices in the order of Odd Fellows.

Edward Dexter Brown of Rhinelander, Wis., was born June 14, 1824, on a farm in Madison county, N. Y. He was the son of Othniel Brown, who was of English descent, his mother being of Dutch ancestry. Edward was the oldest son and third child in a family of seven children. His parents were in easy circumstances for farmers in those times. Coming west in 1846, Mr. Brown purchased 160 acres of government land at the present location of Lake Mills, Wis., and for a year alternated between work on the farm and the pursuit of the carpenter's trade; his first crop being wheat, which he hired to be hauled by team to Milwaukee for a market, a distance of about sixty miles, receiving 50 cents per bushel. In 1847 he sold his farm and returned to New York, where, in company with his brother Everett, he purchased a farm near Peterboro, Madison county, to be paid for in ten yearly installments, but success attending, seven years sufficed; and in 1857 he returned west to Stevens Point, Wis., at which place he, on February 21, 1849, had married Miss Helen M. Anderson, a sister of Thomas Wesley Anderson, then, and still, a resident of that city. He now, with his wife and three children, settled down near Stevens Point and engaged in farming in connection with lumbering. In 1861 he built a saw mill on Plover river, two miles east of Stevens Point, which he continued to operate for about twenty years, principally from his own timber lands on the Plover, to which stream his logging operations were confined, although he had considerable investments in government timber lands of the Upper Wisconsin river, which he had purchased in 1873-4. Mr. Brown was one of the original owners of the present site of the city of Rhinelander, where he now resides, and which he entered from the government in 1874.

Mrs. Brown died March 23, 1888, leaving four sons and four daughters, of whom three sons and two daughters are married, the balance of the family residing with their father at Rhinelander. Mr. Brown has never sought political honors and has held no offices of importance.

George Clayton.—Ability, when backed by enterprising business measures and progressive ideas, will accomplish more than any other professional or commercial requirement. An illustration may be seen of this in the career of George Clayton, who is one of the successful and pushing lumbermen of Wisconsin. His initiatory training in the lumber business of the State was obtained in the office of B. G. Plummer of Wausau in 1881, and he continued to be an employe of this gentleman until the latter's death, in 1886. He then embarked in business on his own account, feeling confident that his knowledge of the business was sufficient to insure success, and leased the saw and planing mill which had belonged to his former employer, which he conducted successfully until 1886. In 1891 Mr. Clayton came to Rhinelander, leased the Soo mill at this place and after successfully operating it for four years, it caught fire and was consumed. The same year Mr. Clayton formed a partnership with Mr. Meiklejohn, but at the end of two years the partnership was dissolved and he became the sole proprietor of the saw and planing mill in the spring of that year. The mill has a capacity of 60,000 feet in ten hours, but at the present time business is so brisk that it is operated night and day. Mr. Clayton buys some logs, but does mainly custom sawing. He has been successful and is a typical lumberman of the State.

CHAPTER XXXI.

MONROE, CLARK, ST. CROIX, BARRON, ASHLAND AND BAYFIELD COUNTIES.

THE first settler in Monroe county was Esau Johnson who built a saw mill in 1849, he having settled near the present Oil City in 1842; eleven years later A. H. and Hilton Blake built a mill on Beaver creek at the town of Sparta, and it ran for about four years, when it was dismantled to make room for a grist mill. Doctor Seth Angel built a mill in 1852 at what later was known as the village of Angelo. In the town of Tomah Robert E. Gillett, in 1856, built a steam saw mill operated by a steam engine of fifteen horse-power, which was the only mill in this section for many years. With the building of the Milwaukee & St. Paul road, Tomah and other villages upon its line developed a considerable interest in lumber manufacture, which increased with the building of the West Wisconsin. In 1855 W. W. Jackson built a water mill at Tomah, and the following year put up a steam mill, which was twice burned and twice rebuilt. In our record of the railroads is included the cut of the mills of this county.

Clark county originally contained one of the largest bodies of pine timber to be found in the State, and the Black river, which traverses this county, has occupied a prominent position in the production of pine, while its resources were abundant in oak, basswood, hickory, butternut and elm. These timber resources were the attraction which led a party of Mormons to visit this section as early as 1836, for the purpose of obtaining timber for the construction of the contemplated Temple at Nauvoo, Illinois. Upon their departure the county was desolate of inhabitants. In 1839 James and Alexander O'Neil, residents of Prairie du Chien, visited the pineries of Clark county and erected a saw mill about three miles south of Black River falls, where they manufactured lumber for the next six years, when they removed to the site of the later village of Neilsville, where they built a mill with which they turned out 4,000 feet per day, which as fast as sawed was arranged in small rafts and run to the mouth of the creek, where larger rafts of about 10,000 feet to the crib were formed, which on passing the falls were again made into rafts of from forty to fifty thousand feet and run to Burlington, Iowa, where Alexander O'Neil established a yard for its sale. In 1846 a mill of about the same character was built by Andrew Grover on Cunningham's creek, about two miles below the mill of the O'Neils, still another mill being erected on the creek at about the same time by a man named Dibble. During this year also Jonathan Nichols erected a similar mill on Cowley's creek, three miles above the village. In the spring of 1847 a heavy freshet swept away every mill which had been erected on Black river, most of them being soon after rebuilt. In 1848 Leander and Benjamin Merrill built a mill, as did also John Lane, and also John Morrison.

Van Dusen & Waterman who settled here in 1848 built a mill about eighteen miles further up the river, at what became known as Eatontown, Albert Lambert building one near the same place. The Van Dusen & Waterman mill was a few years later purchased and operated by Elijah Eaton. These mills were all of small calibre, but their product was sufficient to supply the earlier limited demands of the markets upon the Mississippi, which depended upon them, and to which it was rafted in a manner which has previously been described.

The pineries of this section extend northward into the region of Lake Superior and within about twenty miles of its shores, the head waters of the Chippewa river reaching well into that region, as noted in the history of the Chippewa valley, the Black and Eau Claire rivers with their branches affording excellent facilities for the running of logs from Clark county to the booms at Beef slough and the mouth of the Black river, to which points they are run during the spring freshets, being followed up by the river "drivers," to prevent "jams" and the stranding of logs upon the low grounds. The winter operations of lumbermen upon the Eau Claire and Black rivers in Clark county give employ to fully three thousand men from November to April or May of each year, including choppers, teamsters, river drivers and other necessary assistants in cutting the trees into logs, hauling to the banks of the river, and running them to the sorting booms. From 1867-8 to about 1890 it is safe to estimate the production of logs on the Black and Eau Claire rivers at not far from 300,000,000 feet per year.

Clark county is intersected in its southwest corner by the St. Paul road and on the south by the Green Bay road, while the Wisconsin Central crosses its northern townships, the county being profusely watered by the Eau Claire and Black rivers, upon which streams a majority of its excellent timber has floated to the mills at Eau Claire, La Crosse, etc.

At Hemlock, twenty miles north of Neilsville, a flooding dam was built in 1879 by the Black River Logging Company, to further facilitate the running of logs, through the storage of a large body of water, for use upon the subsidence of the spring freshets; upon this dam N. H. Withee erected a saw and grist mill, the former containing an upright and rotary saw, and in 1880 C. G. Reul built a shingle mill of 80,000 per day capacity.

Ira S. and Leroy Graves, about 1870, built a mill at Colby, on the Wisconsin Central railroad; J. S. Ellminster also built a mill at this point in 1872, as did Potter & Ferguson Bros. some years later; this mill was twice burned and was blown up by the explosion of its boiler, but was each time rebuilt in an improved condition. E. Decker & Co. built a saw and shingle mill two miles below the village. In 1876 William Stevens built a saw mill which was destroyed by fire the following year. J. D. Thomas built a saw and shingle mill with broom-handle factory west of the village. At Dorchester in this county R. C. Evans built a mill in 1874 at a cost of $50,000, having capacity for cutting 6,000,000 feet per season with a double circular, also shingle and lath machinery. This mill was burned in 1880 but was immediately rebuilt. The county has developed a large lumber manufacture upon its various lines of railroad, in connection with which its manufacturing statistics are included.

St. Croix county as a timber county is chiefly noted for the mills at Lakeland and Hudson, and the close proximity upon its western boundary of the city of Stillwater, Minnesota, while the St. Croix river and its tributaries penetrating the rich timber lands of the north and northeast in coursing through the county, bear upon their waters vast quantities of logs and lumber, which seek a market upon the Mississippi river. The eastern tier of towns were originally prolific in the production of white, red and black oak, hickory, hard maple and basswood, with an encroachment in the northeast corner, upon the extensive pine forests of Dunn and Baron counties.

The first saw mill was built in 1842 at the mouth of Willow river, by Joseph Perrington the founder of the town of Hudson. In 1839 a company was formed under the name of the St. Louis Lumber Company, for the purpose of lumbering on the St. Croix; a mill was soon after erected at the falls of the St. Croix, which after repeated reconstruction became a thoroughly modern mill in the later development of the lumber business subsequent to 1880; William Holcombe, who at the first represented the original company, was in 1839 driven away by the Indians. In 1842 Alman D. Heaton, William Kean and William Mahoney built a mill at Osceola. Jesse Taylor, who in connection with Henry Baker had erected a mill in 1840, gave the name of Taylor's Falls to the locality chosen for his enterprise. The territory west to the Mississippi, which included not only the now prosperous city of Stillwater, but as well Minneapolis and St. Paul, was originally a portion of this county, but in the State organization in 1846, the boundaries of Wisconsin being fixed at the St. Croix, the valuable territory to the west became a portion of Minnesota.

B. C. B. Foster settled at New Richmond in 1855 and soon after built a saw mill of the usual sash-gate construction. The dam and mill were at the mouth of the Willow river; its first year's production was about three hundred thousand feet, and proved of great advantage to the settlement of the village and surrounding country. This mill about ten years later passed into the hands of Silas Staples, it having by this time been so greatly improved, that with its accumulating timber land, Mr. Staples paid $20,000 for a one-quarter interest; its yearly production for the next four years was about 2,000,000 feet. Mr. Staples in connection with his brother Isaac Staples, a prominent lumberman of Stillwater, was for many years one of the leading and best known operators upon the St. Croix river. At Hersey in 1868 L. L. Curtis built a mill, which passed into the hands of S. T. Adams in 1876, and of W. L. Spooner in 1877, soon after which it was burned and rebuilt, burned again and went into possession of E. S. Austin. In 1873 Henry Peters settled at Hersey and engaged in the manufacture of hardwood lumber and staves. In 1872 Wilson, Van Vliet & Co. built a saw mill, with a stave and heading factory, at Wilson on the Chicago, Minneapolis & Omaha railroad, their cut being about 5,000,000 feet of logs per year, in staves, heading and wagon stock. In 1854 Thomas Bickford Jewett and his brother Trueworthy Jewett built the first saw and grist mill at Star Prairie. S. A. Jewett about 1861 built a saw and grist mill at Jewett's Mills, later known as Erin, in St. Croix county. As a lumber producing section this county has been less noted than has the opposite shore of the St. Croix river in Minnesota. The county is traversed by the Minneapolis & St. Paul and Wisconsin Central roads, in whose statistics the cut of the mills is included.

The town of Barron on the line of the North Wisconsin railroad is in the heart of the rich lumber region more particularly mentioned in connection with the Chippewa valley. Knapp, Stout & Co., of Menomonie, were probably the pioneer lumbermen of this township, they having begun operations upon the Red Cedar river in 1848, building a dam on the west fork of Yellow river in 1863, to facilitate their logging operations. In 1868 that well-known firm utilized the waters of Hay river by erecting a dam, and building saw, shingle and grist mills, together at a later day with planing mills, at a point where the thriving village of Rice Lake subsequently became a prominent station of the Minneapolis & Omaha railroad, which penetrates the county from both the east and west sides of the county northward, the "Sault" road crossing from east to west near the center of the county, and upon these various lines many mills have been erected, the statistics of which appear in the records of those roads in another chapter. Rice Lake, Almena, Appolonia, Barron and Chetek bring the most important lumber points, the joint production of which in 1897 was about 45,000,000 feet of lumber and 20,000,000 shingles.

The first mill erected at Ashland was built on Chequamegon bay in 1872 by the Ashland Lumber Company, C. E. Sheffield president, E. H. Moore secretary and treasurer, and had capacity for cutting 50,000 feet per day. In 1878 the Union Mill Company erected a mill of 55,000 feet daily capacity. Of this company H. J. James was elected president, S. Blake vice-president, W. R. Durfee secretary, George Remington treasurer. Mueller & Ritchie of Chicago built a mill of 60,000 feet capacity in 1881. In the absence of railroads at this early day, the bulk of the manufacture, which in 1881 reached a gross total of 20,000,000 feet, was shipped by lake to Chicago. In later days the facilities afforded by several railroad lines which traversed this section turned the traffic of these and several large mills erected at a subsequent date largely to the interior, while perhaps the bulk of the production still found egress by the lake route. The returns of production at Ashland in 1880 included the Ashland Lumber Company, 5,500,000 feet; the Union Mill Co., 5,981,000 feet, with the mill of Mueller & Ritchie not operated in that year. By 1892 the growth of the business at Ashland is shown in the reported cut of 170,000,000 feet of lumber and 3,000,000 shingles, viz.: B. Doherty, 8,700,000; W. R. Durfee, 8,000,000; I. P. Newton, 20,000,000; D. W. Mowatt, 28,000,000; Shores Lumber Co., 47,000,000, with 1,000,000 shingles; D. A. Kennedy, 13,500,000; Keystone Lumber Co., 30,000,000; W. R. Sutherland, 15,000,000, with 2,000,000 shingles.

In 1895 the cut was reported at a total of 154,000,000 feet of lumber and 6,000,000 shingles, the operators heretofore named being supplemented by the Ashland Lumber Co. and estate of A. W. Bass, the former with a cut of 18,000,000 and the latter of 70,000,000 feet. The operators of 1896 included the Ashland Lumber Co., 20,000,000; W. R. Durfee, 27,000,000; D. A. Kennedy, 9,000,000; Keystone Lumber Co., 32,000,000; D. W. Mowatt, 17,000,000—a total product of 105,000,000 feet.

Karpe, Russell & Aldrich built a mill at Butternut, in Ashland county, in 1878; its capacity was small, and the mill was not at that time intended for any work beyond supplying the wants of the settlers who were at this time gathering in goodly numbers in this locality. The village of Butternut in later years became a prominent station on the line of the Wisconsin Central railroad, and its cut of 1,500,000 feet in 1880 by the Butternut Mill Co. was never supplemented by a production giving the locality prominence as a producing point.

In 1894 Justus S. Stearns and John S. Woodruff of Ludington, Mich., John W. Geary of Chicago, and Lucius K. Baker of Ashland organized the J. S. Stearns Lumber Co., and erected a two band and Mershon resaw band mill, together with a planing mill, at Odanah, Ashland county, on the line of the Chicago & Northwestern railroad, having capacity for sawing 35,000,000 feet of lumber, with 6,000,000 shingles and 2,000,000 lath; the officers of this company are J. S. Stearns president, John S. Woodruff vice-president, L. K. Baker secretary, John W. Geary treasurer. The company has pine resources of from 150,000,000 to 200,000,000 feet, being the lands known as the La Point Agency of the Red River Indian Reserve of Wisconsin. The cut of this company in 1897 was 28,000,000 feet of lumber and 7,000,000 shingles. The statistics of Ashland county are included in the tables of Lake Superior and the railroad, and need not therefore be enlarged upon in this place.

The Keystone Lumber Co., of Ashland, Wisconsin, has been the successor of the Superior Lumber Co. since 1890, and has sustained the enviable reputation which the former established. It is a business of the utmost importance and is daily growing more so, by reason of the rapid growth of cities and towns and the springing up of new ones all over the country. A visit to the Keystone Lumber Co.'s plant will at once convince one of the immense importance of the enterprise and the magnitude of the work done by this company in particular. Joseph W. Cochran is its president and general manager and John E. DuBois its vice-president, and these positions have been filled by them most creditably since the inception of the business. At present J. Henry Cochran is treasurer and H. B. Warner secretary. The company was capitalized at $1,000,000, and is well-equipped throughout with a gang, band and circular saw, whose capacity is about 160,000 feet of lumber every ten hours. However, the plant is operated day and night, and in addition to its regular amount of lumber, cuts some 75,000 lath per day. Their white pine is shipped to Buffalo, where the company has yards, and is there re-manufactured into siding and flooring, while a large amount of their product is also shipped to Chicago and to Cleveland and other points in the Buckeye State. Their plant is supplied from their own timber land, which now lies mostly in Bayfield and Douglas counties, and the work is carried on under the supervision of the proprietors, by about 300 men.

J. H. Cochran, the president of the Keystone Lumber Company, comes of a family of lumbermen, and was born in the Pine Tree State, where his father was a prominent lumberman for many years, and there he was initiated into the mysteries of the business, his knowledge being obtained by practical experience. In early manhood he removed to Pennsylvania and purchased a mill at Williamsport, becoming a member of the firm of Payne, Cochran & Co., which is still doing business at Williamsport. The plant there is supplied with a circular and gang saw, which is supplied with local hemlock timber. This company is also in the banking business at Williamsport, Mr. Cochran's interests being looked after by a brother there. Mr. Cochran remained in Pennsylvania until the winter of 1889-90, when he came to Ashland and assisted in organizing the Keystone Lumber Co., which has prospered beyond his expectations. He is president of the Northern National Bank at Ashland, and has made his name well known in business circles throughout the State. He is also president of the railroad company, which owns thirty-nine miles of narrow gauge log road used jointly by the Keystone Lumber Co., and the Ashland Lumber Co.

David W. Mowatt.—The lumber industry of the great northwest is one whose greatness is hardly understood, except by those who are directly connected with it. Thousands of persons are engaged in this line, and millions upon millions of dollars of capital are involved. A branch of this business that h[illegible] stood the test of time is that of which David [illegible] Mowatt is the head and of which he became the proprietor in 1885. This gentleman is a product of New Brunswick, born December 5, 1828, and there he was reared to manhood and received fair educational advantages. In his youth he was of an adventurous and daring disposition, and naturally the ocean possessed great attractions for him. During the five years that he was a sailor he served in various capacities until he became chief mate of a 2,500-ton clipper ship, in which he made two voyages around the world, spending one and one-half years, from Christmas day, 1852, in the gold fields of Australia. Naturally he visited many of the most important ports of the world, and picked up no inconsiderable knowledge of nations and their customs, meeting with some most interesting and novel experiences. The year 1859 found him at Chatham, Ontario, as an employe in a saw mill, where he remained until 1864, when he went to Manistee, Michigan, and was there superintendent of saw mills for some years, and was also superintendent of lumbering camps during the winter months, being frequently employed during this time to locate and estimate timber land, in which he showed excellent judgment. While at Manistee he was the capable superintendent of John Canfield for seven years, and was later with Cushman, Calkins & Co., and M. Engleman. At the time he purchased his present plant it was a one circular mill, the capacity of which was about 50,000 feet per day. About one year later another circular saw was added, but this gave place to a band and gang about 1887. The mill at present has a capacity of 120,000 feet every ten hours, and of late saws principally heavy timber, but previously made considerable lath and shingles; the product is marketed in Chicago, Buffalo and Tonawanda principally. Mr. Mowatt is at present sawing on contract, and had about 13,000,000 feet cut for the season of 1897. His establishment gives employment to seventy-eight men.

William R. Durfee.—Prominent among the many reliable lumber mills of the northwest, may be mentioned that at Ashland, of which William R. Durfee is the proprietor, and that it is appreciated as one of the foremost of its kind can readily be seen by its large patronage and the amount of its product. Mr. Durfee begun lumbering in Ashland in 1879, at which time he became secretary and treasurer of the Union mill at that place, of which H. J. James was president. This was a double circular mill, cutting 25,000 feet of lumber, 25,000 shingles and 6,000 lath per day, the most of which was sent to Chicago by water. In 1886 Mr. Durfee became sole owner of the establishment, and soon after converted it into a single band and still later to a double band mill, and as such it continued until 1893, when it caught fire and was burned to the ground, and as there was no insurance it resulted in a total loss of $15,000. In about sixty days, through the energy and push of Mr. Durfee, another mill stood in its place, and since that time he has done principally custom work, and turns out about 1,000,000 feet of lumber a week, the mill being operated twenty hours per day. He has yard-room for about 15,000,000 feet of lumber, has the use of about one mile of dock-room, and works one hundred and eight men the greater portion of the year. Profiting from past experience, he has his yards well protected against fire, there being a large stand-pipe in the mill and a hydrant on each corner of the yard. Mr. Durfee is a native of Providence, Rhode Island, and was reared and educated in that state. On coming west he spent two years in Chicago, and for some time thereafter was engaged in the fur trade in Superior. He next became a railroad contractor, and laid the ties for 250 miles of the Northern Pacific railroad.

Bayfield county, adjoining Ashland county on the north and west, is well timbered with hemlock, spruce, pine, maple, red oak and white and yellow birch. At an early period, date unknown, but probably between 1840 and 1850, the American Fur Company built a small saw mill on section 21, township 50, range 4, which was for a time owned by Julius Austrian, who purchased from the company and in 1856 sold it to Elisha Pike. In this year an engine and saw mill machinery was brought by —— Kahoe, who erected a mill for the Bayfield Land Company. This was a small mill suited only to the wants of the settlers, it being scarcely a dream that the neighborhood would ever develop into importance as a lumber manufacturing and shipping point. This mill was burned during the following year and rebuilt by Mr. Kahoe in 1858; it ran for several years and was then torn down. In 1869 Capt. R. D. Pike built a shingle mill, which proved the nucleus of a mill of considerable size and capacity, which through repeated overhauling and rebuilding, reached a capacity of 40,000 feet per day in 1880, and subsequently to double that amount. In 1881 the Superior Lumber Company was organized for the prosecution of extensive lumber manufacture. The officers of this company were A. C. Fuller president, H. M. Fuller vice-president, T. J. Potter treasurer, J. H. Knight secretary. In 1892 the R. D. Pike Lumber Co. had reached a reported production of 18,000,000 feet of lumber and 2,000,000 shingles, and W. H. Bradley at Bay Mills is reported as building a new mill which does not figure in later reports of production under that name, but the records of 1895 name the Hall & Munson Co. at Bay Mills, with a cut of 31,500,000 feet of lumber. In 1886 Bigelow Bros of Chicago, who for many years were large manufacturers at Muskegon, Michigan, purchased a large tract of land in Bayfield county, and erected a mill at Washburn on Chequamegon bay, whose cut in 1892 was reported at 46,917,449 feet of lumber and 3,500,000 shingles, a cut practically maintained during succeeding years, that of 1897 being 36,500,000 feet of lumber and 15,500,000 shingles. The South Shore Lumber Company in 1892 reported a cut of 36,912,428 feet of lumber and 10,000,000 shingles, which was rather above its average cut during the succeeding years of depression, their record for 1897 being 25,892,000 feet of lumber and 1,500,000 shingles. In 1888 C. C. Thompson of Chicago organized the C. C. Thompson Lumber Co., and with an average manufacture of about 25,000,000 feet of lumber and 8,000,000 shingles, has continued to the present time. Beside those named above, Rood & Maxwell in 1887 reported a cut of 10,000,000 feet, and the North Pine Lumber Co. a cut of 6,000,000.

The statistics of the Ashland district, in which is included the mills of Ashland and Bayfield counties, show a total manufacture in 1897 of 265,350,000 feet of lumber and 30,764,000 shingles, an increase of 43,150,000 feet of lumber and 20,714,000 shingles over the previous year. This district is one of the most favored so far as continued pine resources are concerned.

A. A. Bigelow & Co.—No matter how crowded may be the market in any particular calling, enterprise, intelligence and push is bound to win success, both as regards reputation and the accumulation of the almighty dollar. At least this has been the experience of the above-mentioned company, which has been very extensively engaged in the manufacture of lumber, lath and shingles at Washburn, Wisconsin, since 1887. They have a double rotary and double gang mill, with a capacity of 250,000 feet of lumber in ten hours, 8,000,000 lath per year and 100,000 shingles per day, and their market is the city of Chicago, and various ports on Lake Erie, Buffalo, Cleveland, etc. Their property has ample fire protection, being connected with the city water mains, and their plant is admirably arranged as regards the utilization of space, and convenience. The capacity of their dockage amounts to 12,000,000 and nearly all their shipping to Chicago is done on their own boats, the steamer "Madagascar," and the barges "Fannie Neil," "Parana," and "S. M. Stephenson." In camp and mill this company employs about 450 men, and the most of their logging is done during the summer months. They have a ten years' supply of timber, all of which is within twenty miles of the mill, and is conveyed there to be sawed, by their narrow gauge railroad, which comprises about thirty-five miles in length, running in different directions. This company has in constant employment about five engines and one hundred and ten cars, which are kept in repair at their own shops, where work of this sort is done for themselves and others similarly employed. A. A. Bigelow & Co. did an extensive lumber business in Muskegon, Michigan, from 1861 until 1887, when they built their present mill at Washburn. Previous to his experience at Muskegon Mr. Bigelow had been in the yard business in Chicago, which he followed in connection with milling until about 1887.

Mr. Bigelow was also associated in business with Ira O. Smith, and together they patented the refuse burner now in common use, in 1872. Mr. L. T. Walker, for many years general superintendent of the business, was educated a mechanic and engineer, and was born in the vicinity of Edinburgh, Scotland, where he was reared to manhood. His only son, L. T. Walker, has been a member of the firm of A. A. Bigelow & Co. since 1884, and since the death of his sire has been its capable manager. He was born in Muskegon, Mich., and is a practical and experienced lumberman, having been reared to the business. He is an active and thoroughly practical business man, as are also his partners, the Bigelow brothers.

Anson A. Bigelow was among the early pioneers in the lumber business of Chicago and the northwest, where the name of Bigelow has stood conspicuous, and the house of Bigelow Brothers has maintained a reputation second to no other for that enterprise and push, combined with a sterling integrity, which has given national renown to the greatest lumber market of the world. The Bigelows descend from an English ancestry, members of which settled in the New England states so early as 1620, the grandfather of the subject of this sketch removing to Washington county, New York, at an early day, reaching that locality with his young bride in the days when travel was mainly confined to horseback and saddle, becoming one of the earliest pioneers of that section, in which their descendants have continued to reside, and when the subjects of this sketch were born to Anson and Eliza (Moons) Bigelow, and with such advantages as were afforded by the common schools and academies of the period, spent their early lives upon the home farm. Anson A. Bigelow, head of the firm of Bigelow Brothers, was born November 7, 1833; at the age of nineteen years, with plenty of pluck and determination, and with a fair education, he left home and faced the world in which he was later to find that success which is marked not only by wealth, but by a life of probity and usefulness. His first business venture was in a clerkship with a linen manufacturer at Troy, New York, but a year later he became bookkeeper and general manager in the office of Griffin & Buell, corn merchants at Albany.

His health beginning to fail and his physician advising a change of climate, he decided to go west, and in March, 1855, accepted a position with N. Pendleton, a lumber dealer at Racine, Wisconsin, keeping the books and taking general charge of the office duties, rendering himself so indispensable in the management of the business, that three years later he was offered a partnership, and the firm of Pendleton & Bigelow was established and conducted a successful business. In 1862 Mr. Bigelow, discovering the superior advantages of Chicago, sold his interest in the firm to his partner, and in September of that year, in company with his brother, Charles H. Bigelow, organized the since renowned firm of Bigelow Brothers, of which in 1864 William H. Bigelow, the eldest of the brothers, also became a member, so continuing until his death in August, 1882. Charles H., however, with the exception of one year at Chicago, has been a resident of St. Paul, Minnesota, although retaining his interest in the firm, which from the first was under the management of Anson A. In 1866 the firm purchased a saw mill at Muskegon, together with a large and valuable tract of pine timber, and engaged in the manufacture of lumber, with Peter Walker in charge as superintendent (admitting him to partnership in 1878, and continuing him in charge of the business of manufacturing at Muskegon, and later at Washburn, Wisconsin, until his death in March, 1892, when he was succeeded in this department by his son Lyman T., who has since had charge). During the first year of the firm at Chicago and to September, 1863, the firm handled 5,400,000 feet of lumber, a large amount for a young firm in that day, but strongly contrasting with the 40,000,000 feet per year which by steady advancement had been realized in 1883. The mill at Muskegon operated two circulars and in 1873 was rated at a capacity of 13,000,000 feet, and its oper-

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ations in subsequent years ran from 10,000,000 to 15,000,000 feet yearly until 1886, which was the last year of its operations, the firm having by this time purchased a body of 37,000 acres of pine land in Bayfield county, Wisconsin, and in the fall of that year removing the machinery to Washburn, where with large additions to the plant (two gangs being added), a mill of 45,000,000 feet of lumber and 15,000,000 shingles yearly capacity was erected, and that extent of manufacture has marked their subsequent operations. The Chicago yards of the firm from 1862, first at the corner of Eighteenth and Canal streets, later at Twenty-second and Fisk, were in 1882 removed to the Stock Yards district, and in 1887 the yard business was abandoned, the business now becoming exclusively a wholesale one direct from the mills, the firm owning several vessels for the delivery of their product, the principal market for which was found at Chicago, at which point a general office was and is still maintained.

From the beginning in 1862 until his death, October 13, 1895, Anson A. Bigelow was the general manager and director of the business in all its details. He was highly esteemed as a clear-headed, enterprising, whole-souled and genial man, of commanding presence and unswerving integrity, and during the thirty-six years of his connection with the lumber trade of Chicago, Muskegon and Washburn, no man enjoyed a higher meed of confidence and respect among the fraternity of lumbermen, as a man whose word could be implicitly relied upon, and whose judgment upon all questions was sought, and held in highest respect. He assisted (1869) in the organization of the Lumberman's Exchange of Chicago, taking great interest in its prosperity, serving many years as a director, and in 1881 as its president. He was united in marriage, December 13, 1859, to Miss Emma W. Williams of Racine; two children were born of this union, Nelson P., now general manager of the business established by his father, and Emilie S. Mr. Bigelow was a member of the Chicago and Calumet clubs, and with his family, a member of the Episcopal church. He was in politics a Republican, but never sought political preferment.

The firm as now constituted is composed of N. P. Bigelow, son of A. A. Bigelow, C. H. Bigelow, of St. Paul, Minnesota, a brother of A. A. Bigelow (deceased), A. A. Bigelow, son of C. H. Bigelow, and L. T. Walker. N. P. and A. A. Bigelow have charge of the Chicago end of the business under the firm name of Bigelow Brothers, the original name of the firm. Peter Walker (deceased) was connected with the firm as general manager of the mills from 1862 until his death in 1892.

At the time of the formation of the firm, Charles H. Bigelow was engaged in the linen manufacturing business at Troy, New York, but his health failing he came to Chicago, removing a year later to St. Paul, Minnesota, where he is president of the St. Paul Fire and Marine Insurance Company, and president of the National Bank of St. Paul, while still connected with the house of Bigelow Brothers in the lumber business.

William H. Bigelow was also a member of the firm from 1864 until his death in August, 1882; he was a graduate of Williams college, class of 1851, and commenced the study of medicine, but failing health compelled a change in his plans and purposes. Coming west he engaged in civil engineering at Anamosa, Iowa, and assisted in the construction of the railroad in Jackson and Clinton counties of that state. In 1855 he removed to Sioux City, where he built the first government land-office, and a few years later was appointed by President Lincoln receiver of the office. In 1864 he joined his brothers in the lumber business of Chicago. His wife was Mary A. Hayes (a cousin of ex-President Hayes); their children were Russell A., William H., and Hayes Bigelow.

Nelson P. Bigelow, only son of Anson A., and present manager of the business still carried on under the original designation, was born at Racine, Wisconsin, July 19, 1862, reaching Chicago with his parents in September of that year; he was educated in its public schools, and later graduated at Yale college (1884). Since 1887 he has been a partner in the firm, and since the death of his father has had charge of the immense business which is conducted in the interest of the estates of the deceased and surviving members. He is a member of the Chicago and University clubs, and succeeds to the high esteem in which his father was held by the lumber fraternity, as a worthy successor of an honored sire. Each of the Bigelow brothers fully sustained the goodly heritage transmitted by an honored ancestry, in all the elements of good citizenship and an honorable mercantile career.

CHAPTER XXXII.—CHIPPEWA VALLEY.

EARLY PIONEERS.—EAU CLAIRE.—MENOMONIE.—INCEPTION AND DEVELOPMENT.

FEW localities in the northwest are entitled to equal mention in a history of the lumber business, with the Chippewa valley of Wisconsin, covering a territory watered by the Chippewa river, which with its branches cover a territory embracing 7,000,000 acres, or 10,000 square miles, of which some 6,000,000 acres are covered with dense forests, in which pine was originally the principal timber growth, interspersed with hemlock, oak, maple, basswood, elm, and varieties of birch, and in the more swampy sections, white and yellow cedar.

An estimate of the pine timber of the valley as it stood in 1840 placed it in the neighborhood of 20,000,000,000 feet, while the hemlock growth (then unconsidered) may be estimated at from 3,000,000,000 to 4,000,000,000 feet, figures which have been fully realized in the later development. The Chippewa river emptying into the Mississippi at the foot of Lake Pepin, extends with its branches northward through the counties of Pepin, Dunn, Eau Claire, Chippewa, Sawyer, Ashland, Price, Fay and Barron, its numerous tributaries penetrating a country rich in the white pine which in its manufacture has contributed to the growth of scores of cities and settlements in which the lumber industry has been the foundation of their prosperity, and of these Eau Claire and Chippewa Falls on the main river, and Menominee on the Red Cedar, are the more important. The first water-power on the river is at Eau Claire, where are three dams with from twelve to fifteen feet head each, giving an available force of 10,000 horse-power, and at Chippewa Falls is a dam with twenty feet head, and from this point north are a number of smaller dams, which are utilized in the running of saw mills.

The fact that a vast tract of pine forest existed in this region was known to Louis Hennepin and his companions Michael Accan and Antoine Auguel, who traversed the Chippewa from its mouth northward so early as 1680. James Carver, a traveler of 1768, also mentions the existence of a great forest of coniferous trees seen by him in this region, but with no settlement of the country its value was not considered by him. With the settlement of the Upper Mississippi early in the present century, a need of lumber was realized. Prairie du Chien was headquarters for the army of the west, and in 1819 Wilfred Owens of that place supplied the capital to enable Constant A. Andrews, a Pennsylvanian, to build a saw mill on Yellow river, which he essayed to do in company with one Battelle, under the permission of the commanding officer of the fort. Under date of November 10, 1819, Mr. Andrews writes to Rev. Samuel Peters:

"On the 2d day of November I set a saw mill running not much inferior to any mill in the United States; it is about thirty to forty miles east of Lake Pepin. The Sioux very willingly gave us permission to come here. There were seven chiefs in council—Lefroy not there; the seven gave us permission to stay five years. Lefroy came later and gave it forever."

Under date of January 3, 1820, one Willard Keyes in a letter to the Rev. Mr. Peters says:

"Mr. Andrews still perseveres in the Indian country; he has been employed the summer past in building a saw mill on Black river, the mouth of which is one hundred miles above Prairie du Chien."

This undoubtedly refers to the same mill, notwithstanding the Keyes letter locates it on the Black river, as Mr. Andrews expressly states that it is east of Lake Pepin, Mr. Keyes confounding it with a mill built the same year (1819) by Col. John Shaw (later of Marquette county), on the southeast bank of Black river, where he built a dam of six feet fall and had scarcely got his mill started when he was besieged by hundreds of hungry Winnebago Indians in a starving condition, who obtained all his supplies of provisions and clothing, compelling his immediate return to Prairie du Chien: on returning in the spring of 1820, he found that the Indians had burned his mill, and he abandoned the enterprise, rafting the logs on hand to the lower river. Col. Shaw was a native of Johnstown, Montgomery county, N. Y., where he was born in 1783, coming west in 1808, and after roaming all over the wilds of Missouri and Arkansas, and acting as spy for the Missouri rangers in the war of 1812, finally became a ranger over the territory of the Upper Mississippi, and was engaged in boating and mining. In 1815 he endeavored to get a permit from the Indians to build a saw mill, at what is now Bellevue, Iowa, as lumber was worth $70 per thousand feet at St. Louis, and he had learned of abundant supplies of pine timber on the Wisconsin, Chippewa and other streams. After spending several hundred dollars in presents to the Indians, and his supply of fire-water being exhausted, they finally refused their permission on the ground that "it would lead others to ask a similar privilege, one grant would pave the way for another, and they must deny all or their lands would soon be overrun by white men, who were like swarms of bees." In 1819, however, he ventured the experiment on the Black, with the disastrous results noted above.

About 1822 Hardin Perkins of Kentucky reached Prairie du Chien, and obtained the consent of Col. Taliferro, who at that time was government agent for the Sioux Indians, and also the consent of the Indian chiefs, to erect a mill on their lands on the Chippewa and its tributaries, but not having sufficient capital to carry out his project, and no personal influence with the Indians, he was joined by Joseph Rolette and James H. Lockwood, and a contract was made with Chief Wabashaw's band of Sioux, who at that time claimed the Chippewa country, giving them the privilege of erecting a mill and cutting timber to supply it, for a compensation of $1,000 per year in goods. This mill was located on a branch of the Menomonie river (Red Cedar) at Wilson's camp, about twenty miles from its mouth. The mill was nearly completed, when a sudden freshet swept away both dam and mill, and Perkins, who had superintended the work, returned to Prairie du Chien with his family and men. During the progress of the work they had frequently been threatened by the Indians and as well by Col. Snelling, who commanded the fort of that name, who had frequently sent word that he would send a force to destroy the mill, asserting that the Indian commissioner had no power or authority to give permission to build mills in the Indian country. As the parties feared these combined powers, no further effort was made for several years; the Indians, however, claimed their right and authority in the premises, asserting in answer to the claim that the great father would not let parties go on to build, that it was not a matter which concerned the great father, as the country was theirs, and they had given permission. Nothing was done by the parties, however, until May, 1830, when the contract was renewed, and a superintendent, carpenters, blacksmith and laborers with their tools were sent to the old site, and rebuilt the dam, locating the mill on the Menomonie, and cutting a canal from the smaller stream to the river.

In connection with this enterprise we discover an uncredited bit of history, which says:

"In 1830 an attempt was made to erect a mill on the Chippewa. In May of that year workmen proceeded to the old site on the Menomonie river; during the night several Ojibeways arrived and told the men that they would kill them if they did not leave. Superintendent Armstrong, in charge of the party, was so alarmed that he took a canoe the same evening and floated down the river, the others following next day. In August, however, a second party of workmen went up from Prairie du Chien, and by the next spring had 100,000 feet of lumber ready to raft down the river."

Another account, however, differs somewhat in dates, but is substantially the same and says:

"After many vicissitudes the mill was finally started in March, 1831, and by June 1st had sawed 100,000 feet of lumber, which was soon after rafted down the river by a method of lap rafting, which enabled a long thin raft to pass over shoal places, until arriving at deeper water at the mouth of the river larger rafts were constructed and taken to Prairie du Chien and St. Louis. About this time, however, about one-half of the lumber which was ready for market was swept away by a freshet, which scattered it over the marshes and low grounds of the lower river."

In Henry R. Schoolcraft's "Personal Memoirs of a Residence of Thirty Years with the Indian Tribes, 1812-1842," he says, pages 388-389, under date of August 11, 1831:

"The next morning we embarked at six o'clock, and after descending strong and rapid waters for a distance of about fifteen miles, reached the site of a saw mill. A Mr. Wallace" (this was no doubt George Wales) "who with ten men was in charge of it, and was engaged in reconstructing a dam that had been carried off by the last spring freshet, represented Messrs. Rolette and Lockwood of Prairie du Chien. Another mill, he said, was constructed on a creek just below, but out of sight. He said no Sioux had been here for seven years. At that time a mill was built here, and the Sioux came and encamped at it."

At about this time Daniel Whitney obtained a permit from the secretary of war to build a mill on the Upper Wisconsin river. The pine timber on the tributaries of the Upper Mississippi above Prairie du Chien was at this time, as it has since been, much wanted in the new towns and settlements of the lower river, but being in Indian territory, the whites were not permitted to use it except by special permission of the secretary of war. In the spring of 1828 James H. Lockwood, afterward better known as "Judge" Lockwood, who was at the time a fur trader, in connection with General Street of the U. S. army, and who was Indian agent at Fort Crawford, obtained a permit from Chief Wabashaw of the Sioux, and the chiefs of the Chippewa tribe, which was soon after approved by the government, by which they were allowed to build a mill on Wilson's creek, near its confluence with the Red Cedar (now more generally known as the Menomonie), for which it was stipulated that they should annually pay the sum of $2,000 in merchandise, blankets, beads, whiskey, etc. This payment was to be made to the Sioux on the first of July each year at Wabasha Prairie (now Winona) and to the Chippewas at the saw mill, which was to be built upon the lands stipulated in the contract. This mill was located at what is now the west side center of the city of Menomonie, and discharged soldiers, and Canadian-French and half-breeds constituted the laboring force in building the mill, boating supplies and cutting the timber, which was found close at hand. An ex-lieutenant of the army, George Wales, was in charge of the operation and conducted the business for Street & Lockwood until 1835, and meantime erected a second mill for the same parties at what is now known as Gilbert's creek. Jefferson Davis, then a young lieutenant in the army, was about this time sent to the mills to secure lumber for the rebuilding of Fort Crawford, and it is related that his proclivity to "boss the job" was no less marked than was developed later in his career, when he essayed to take charge of the future interests of the American nation. The order was filled, the lumber placed in rafts, and floated down the Red Cedar to the Chippewa, an old voyageur in charge as pilot, Davis and his fellow officers being on board to take it down the river. All went well until the diverse channels near Beef slough were reached, all of which were better known to the old pilot than to the young officer. "To de right hard," said the pilot to the steering sweepsman. "What's that, you villain?" said Davis; "are you going to run this raft right to hell? I tell you to pull to the left where the main channel is." His order was law and was obeyed, with the result that the raft brought up in the drift-wood which blocked the channel, and was lost.

In 1835 Street & Lockwood sold their mills to H

S. Allen together with all their teams and appurtenances, having first obtained the consent of the Indians, Mr. Allen agreeing to assume all obligations under the contract with them. The consideration was made payable in lumber at $30 per thousand feet, in annual installments. Mr. Allen was a Vermonter, who had come to Menomonie in 1834; he was brought up in the lumber business of the east, and his practical experience enabled him quickly to discern the requirements for a successful prosecution of it in the west. Among his first improvements was the construction of suitable booms for the safe holding of his log stock, and to his foresight, energy and practical appreciation of existing conditions, and future developments, is in no small degree due the systematic and successful prosecution of the lumber business, which has since marked the progress of the lumber operations of this section. Mr. Allen entered the first land, and laid out the town of Chippewa Falls, built the first flouring mill, and was identified with all the public enterprises of the valley during its earlier days of development. He died in 1886, a highly honored and appreciated citizen. Captain Wales on retiring from the management of the Street & Lockwood business went to Eau Galle, where he built a mill on the site later occcupied by the mill of Carson & Rand.

Digressing for a moment, we find the chronological order in which the saw mill industry of the Upper Mississippi was developed, to take its rise with the futile endeavor of Constant A. Andrews in 1819, followed by Col. John Shaw on Black river the same year, who was succeeded by Hardin Perkins, Joseph Rolette, James H. Lockwood, Daniel Whitney, Lockwood & Street and Hiram S. Allen.

At an early day, the date of which we are unable to ascertain, Theodore P. Burnett and others applied to the government for permits to build mills on the Black river, and the applications were referred to Gen. Clark at St. Louis, who was supposed to know everything that was to be known regarding the wild country of the north and its wants, although living 600 miles south of it, and on his report that he could see no necessity for another mill in that region, the application was denied by the government.

In 1829 John H. Fonda, who was acting as pilot and scout for General (afterward President) Zackary Taylor's command, was sent north in search of timber for building Fort Crawford, near the present town of McGregor, and with his party proceeded up the Menomonie to the pineries, and after a winter and spring of great hardship, secured the necessary material, including a large quantity of square timber and shingles. (Wisconsin Pioneer Reports, vol. 5, p. 242.) It is probable that this was coincident with and a part of the expedition previously referred to in connection with Lieutenant Davis.

Capt. George Wales, heretofore mentioned as building a mill in 1835-6 on the Eau Galle, after terminating his connection with Street & Lockwood, was in partnership in this undertaking with Thomas Savage, and a millwright known as Capt. Dix, who in all probability had been employed in the erection of the mills on the Menomonie. Not long after the completion of this mill, in 1839, a Canadian, William Carson, and a down-east Yankee named Henry Eaton appeared, and claiming that the mill company had no exclusive rights in the forest, commenced getting out square timber and shingles, the former by hewing and the latter by riving and breasting, forming the timber into rafts upon which the shingles were loaded for transportation to market, and it was not long before several other parties arrived and engaged in the same occupation. The Eau Galle company finding all efforts to induce Carson and Eaton to leave the stream unavailing, concluded to sell an interest in the mill to Wales, which soon after resulted in the withdrawal of Savage and Dix, leaving the firm to consist of Carson, Eaton & Wales, the latter being considered the financial partner, who spent much of his time at St. Louis and other points in disposing of the product of the mill. (See sketch William Carson.)

Digressing from the main point of our narration, it is interesting to note, as bearing upon early explorations in the Upper Mississippi region, that in 1855 the Hon. W. J. Gibson presented to the Wisconsin Historical Society a section of a pine tree from Black river, showing an ancient cut by some sharp instrument, which, from the concentric circles which had overgrown it, must have been made fully two hundred years previously and was undoubtedly made by explorers who had penetrated the western wilds soon after the landing of the Pilgrim Fathers at Plymouth Rock, and no doubt marked the camping-place of some of the early Jesuit fathers.

In 1839 Judge Lockwood built a saw mill on the west side of the Red Cedar, making three mills owned and run by him, and the mill on Gilbert creek was from that time known as the "middle mill" for many years; the Irving creek mill was burned in 1843, having in 1841 been sold to Stephen McCann. The same year (1841) the mill on Wilson creek was sold to one James Green, and by him soon after to a Mr. Pearson, by whom the first dam was constructed across the Menomonie, which later came into the possession of a man named David Black, who on June 1, 1846, transferred a half interest to Knapp & Wilson (Mr. Black died in the fall of 1846, and John S. Lockwood of Prairie du Chien, as executor of his estate, sold the other half of the property to Messrs. Knapp & Wilson), who in 1853 associated Mr. Stout, and the firm of Knapp, Stout & Co. was instituted, and formed the foundation upon which the later incorporation known as the "Knapp, Stout & Co. Company" was established and still continues, the leading and most influential lumber concern of the Menomonie, whose annual manufacture has for many years been from 80,000,000 to 90,000,000 feet of lumber and 50,000,000 shingles at their several mills at Menomonie, Cedar Falls and Downsville, disposed of at their wholesale yards at Dubuque, St. Louis and other points on the Mississippi river, in addition to an extensive car trade, which they have been enabled to carry on with the western prairie country, through the railroad facilities which have opened direct communication with all parts of the nation. The total production of the Knapp, Stout & Co. Company and its predecessors from 1836 to 1896 was not far from 1,950,000,000 feet.

Arthur McCann and J. C. Thomas in 1843 built mills on the Chippewa which have since been known as the "Blue Mills," having with repeated rebuildings been kept in commission to the present day. In 1864 they were rebuilt by H. C. Williams and John Barron, and their capacity increased to 15,000,000 feet per year. In 1871 they were operated by John Barron & Co., and in 1874 became the property of the incorporation known as the Badger State Lumber Co., with an authorized capital of $180,000, since increased to nearly $400,000, with John Ure as president, W. A. Rust, vice-president, F. W. Woodward secretary, Alfred Toll treasurer.

A mill was erected in 1850 on Yellow river by the firm of Colton & Moses, and about the same time Alexander and Henry O'Neil with —— Lockhart and B. F. Monahan, built a mill on O'Neil's creek, about a half-mile from where it empties into the Chippewa river, being the one later owned and operated by F. G. & C. A. Stanley; this had a sash saw, afterward changed to a double rotary, and shingle mill, which is still operated by them. Early in 1855 the mill of Stone, Swim, George Randall & Hope, on the site of the Eau Claire Lumber Company's mill, was sold to Carson, Eaton & Downs of Eau Galle, who removed the old-style flutter wheel, substituting the more modern invention of reaction, spiral or center vent water-wheel, adding greatly to the efficiency of the mills.

The year 1855 brought a great influx of speculators into the region and vast quantities of pine lands were located, and the speculative spirit was rampant until the financial revulsion of 1857 put a check upon the business enterprise of all sections of the country. The mill operators vied with outsiders in the endeavor to secure large supplies for future operations, which it was now seen would be demanded in the settlement of the west, and as a result, many of the mill men became land poor and were greatly depressed for several years and until the great impetus and stimulation resulting from the war, which began to be manifest in 1862. In 1856 Chapman & Thorpe purchased the entire interest of Gage & Reed in the mills, and one-half of the village plat of Eau Claire, together with the extensive pine land interest of that firm. In this year also Daniel Shaw & Co. located at Shawtown (now 4th ward); Ingraham & Kennedy bought a site for their first mill, and an extensive mill race was projected to connect Half Moon lake with the Chippewa river, converting it into a safe reservoir for logs; a land-office was established in the district, and large areas of pine lands were placed in market at the minimum price of the government. Chapman & Thorp in 1857 bought the mill and interest of Carson, Eaton & Downs at Eau Claire and set about building a steam saw mill, but made haste slowly in consequence of the stringency of the times. The price of lumber was greatly depressed and business was for some years practically at a stand-still; notwithstanding, the mill of Daniel Shaw and Martin Daniels at Grand Island near Chippewa Falls was completed in 1858. This was burned in 1863 and rebuilt by James A. Taylor; it later became the property of the French Lumber Co., who sold it to Bradley Bros. of Milwaukee, who later removed the machinery to Tomahawk on the Wisconsin river, where they erected a saw mill. In 1863-4 Charles Coleman of Chippewa Falls erected a mill below the Badger State Co. mills, having a capacity of 15,000,000 feet per year. A. F. Hodgins and John Robson succeeded to the business in 1866-7 and operated until 1875, when the plant was rebuilt and passed into the hands of the Lafayette Lumber Co., by which it was enlarged and operated until it was destroyed by the great flood of 1880 and was not rebuilt. Many mills were erected on various streams of the vicinity during the succeeding year, most of them being of comparatively small calibre. At Glen Flora on Duncan creek there has of late years been a steam, saw shingle and planing mill, operated by the Glen Flora Manufacturing Co. A mill was built at Ingram on Main creek in 1890 by F. Turcot, who sold it to the French Lumbering Co.; its capacity was rated at 40,000 feet daily. In 1865 Robert Marriner built a mill at Cadotte Falls with a capacity of 10,000 feet per day; this later was sold to A. K. Gregg, and still later to Howison & Weatherby, who afterward disposed of it to Leonard Dibble; it has since gone to decay. A mill of 25,000 feet per day was built at Cadotte by W. S. Monroe and Daniel Clark in 1883, and is still operated by Mr. Monroe. A mill was erected in Wheaton township in 1869-70, with capacity for 6,000,000 feet per year, by Ira Mead, which in 1878 passed into the hands of the Northwestern Lumber Company of Eau Claire; it was destroyed by the flood of 1880 and has not since been rebuilt.

The mills at Chippewa Falls were undertaken soon after the panic of 1837 by H. L. Dousman, Gen. Sibley, Col. Aiken and Lyman Warren, agents for the American Fur Co., the work being under the supervision of Jean Brunett. No more expensive location for the consummation of such a project could have been selected, because of the hardness of the rock, and the difficulty of holding logs in the river, and for many years the venture was unprofitable, and in 1843-4 the plant was purchased by Joseph W. Bass and Benjamin W. Bronson, who some two years later were joined by Hiram S. Allen of Wilson's creek (the present site of the city of Menomonie), and the firm of Allen & Bass was formed and made considerable improvement to the plant; the great flood of the following spring, however, washed away their costly structures, together with 10,000 logs, and nothing was left but the mill. Mr. Bass now withdrawing, Mr. Allen continued the business. In 1848 Mr. Bloomer, a wealthy merchant of Galena, selected a location and commenced the erection of a mill on Duncan creek; but before its completion disposed of the property to Mr. Allen, who was later joined by Capt. Stover Rines and his brother, Moses Rines, the former withdrawing two years later, and Jacob Wells soon after becoming interested with the remaining partners. By 1855 the average output had reached 100,000 feet per day, but in the spring of that year a flood swept away everything belonging to the plant except the mill itself, including 70,000 logs representing 25,000,000 feet of lumber, and no more lumber was cut that season. In 1856 the Chippewa Falls Lumber Co. was incorporated, the officers being H. S. Allen president, Mr. Jordan vice-president, John Judge secretary, the capital stock being placed at $100,000. The company, however, went to the wall a year later, and remained in the hands of a receiver for several years, when in 1864 the property was purchased by Phelps & Corwith, and was operated under lease by Pound & Halbert, who soon after purchased it for the sum of $115,000. and the firm became Pound, Halbert & Co., the "Co." being William Carson and E. D. Rand, being succeeded in 1869 by the Union Lumbering Co. (incorporated), Thad. C. Pound president, A. E. Pound secretary and treasurer; it grew to be one of the largest lumber mills under one roof of which the country could boast, the capital stock being $1,500,000, the company owning 80,000 acres of land, estimated to yield 700,000,000 feet of lumber; the capacity of the mill was 350,000 feet per day of twenty-four hours. The company met with reverses in 1875, resulting in the sale of the property in 1878, William A. Wallace being the purchaser. Peck & Barnard operated it under lease for a year, when the property passed into the hands of the present Chippewa Lumber & Boom Co., which was organized in the fall of 1879, with Stanton Barnard as president; associated with him were William A. Wallace, F. Coleman and D. M. Peck; these parties subsequently (in 1881) disposed of the property to Frederick Weyerhaeuser and others for $1,275,000, and Mr. Weyerhaeuser became president, O. H. Ingram vice-president and William Irvine secretary and treasurer, and there has since been no change. This company has since become one of the most powerful lumber companies in the world, its control of pine lands throughout Wisconsin and Minnesota being probably in excess of that of any other organization in this line of business. The mill was burned in 1886, but was at once rebuilt, and given a capacity for cutting 325,000 feet of lumber, 100,000 shingles and 75,000 pieces of lath per day. The equipment consists of two gangs, four band saws, four each of edgers, trimmers and slab slashers, two shingle mills and three lath mills, the motive power being furnished by water-wheels of 500 horse-power. A sister plant is located about a mile distant, in connection with which are extensive planing mills for the finer preparation of the lumber, for rail shipment to all sections of the country.

A mill was erected on Duncan creek in 1857 by Joel H. Duncan, from whom the creek was named. Mr. Allen also erected a mill on this creek in 1857. James A. Mitchel and Edward Coleman in 1868 erected a mill at Frenchtown, which in 1873 was purchased by John Barron and was operated by him until his death in 1878.

Previous mention has been made of Knapp, Stout & Co. Company at Menomonie, who also have a mill at Downsville, eight miles south of Menomonie. This mill was built by Capt. Downs, who built a dam across the river and built a mill near the spot where Ebenezer Thompson had essayed to build a mill some years before, which was wrecked by a freshet before its completion. The Downs mill was enlarged by the Knapp, Stout & Co. Company to a capacity of 100,000 feet in eleven hours, planing and shingle mills being added. The Knapp, Stout & Co. Company also have a mill at Cedar Falls on the Menomonie river, which was built by Gilbert Brothers in 1859, and by them sold to Bury & McCormack, and after passing through several hands was purchased by the Knapp, Stout & Co. company, who enlarged it to a capacity of 100,000 feet per day, adding a shingle plant, and a finely-equipped planing mill. In Rock creek, township of Dunn county, a saw mill was built in 1871 by Garland & Nichols and the Eau Claire Lumber Co., which in 1889 passed into the control of the Mississippi River Logging Co.; its capacity was 18,000,000 feet per season.

The evolution of the Knapp, Stout & Co. Company is an interesting history. Capt. William Wilson of Fort Madison, Iowa, undertook a tour of exploration through the valley in 1846, and finding that the mill of David Black was in the market, and that the timber resources of the region were abundant, induced John H. Knapp of Fort Madison, a man of some capital, to join him in the purchase of a half interest in the Black mill, which was then operated under the name of Knapp & Black. In the fall of that year Mr. Black died at Keokuk, Iowa, and the remaining partners purchasing his interest, the firm became Knapp & Wilson. In August, 1850, Capt. Andrew Tainter was admitted to the firm, which now became Knapp & Tainter. In 1851 a new mill of greatly increased capacity was erected, and for a period, Capt. Downs and also Thomas B. Wilson became members of the firm. In 1853 H. L. Stout, a capitalist, purchased an interest, and the firm became Knapp, Stout & Co. In 1878 the firm was incorporated as the "Knapp, Stout & Co. Company," with a paid-up capital of $2,000,000, which was increased four years later to $4,000,000. J. H. Knapp was at this time elected president, A. Tainter vice-president, T. B. Wilson secretary and J. H. Douglas treasurer. The company's plant occupies 500 acres; they have three saw mills—one of six gangs and one circular; a second, two circulars (later changed to two bands) and four shingle machines; and the third, one circular and six shingle machines. The capacity of these mills is about 450,000 feet daily, with 450,000 shingles, and the yearly production between 80,000,000 and 90,000,000 feet of lumber and 50,000,000 shingles. They employ at the three mills about 600 men; the machinery is operated by water wheels rated at 1600 horse-power, and by engines rated at 1000 horse-power; its cut of 86,310,000 feet of lumber and 49,276,000 shingles in 1895, was equaled only by that of the Kirby-Carpenter Co. of Menominee, Mich., who reported a cut in that year of 103,568,961 feet of lumber and 28,380,750 shingles, the next highest report being that of the H. C. Akeley Co. of Minneapolis, with 81,081,020 feet of lumber and 19,420,500 shingles. Still it must be added that for several preceding years the product of the Knapp, Stout & Co. Company mills exceeded 100,000,000 feet of lumber annually.

A water-power saw mill was erected in 1854 in Bridge Creek township, of Eau Claire county, by John F. Stone, who soon after in connection with

William Wilson

Charles F. Buckman put up a steam saw mill, which in 1870 was sold to J. L. Ball and C. W. Culberson who still operate it, although having changed its location to the east of the village of Bridge Creek.

In 1863 Charles Warner selected a site for a saw mill in Brunsville township, and erected a mill of 20,000 feet per day capacity at what was later called Porterville or "Porter's Mills"; this was completed in 1864 by Porter, Brown & Meredith; it burned in 1866, and Brown & Meredith withdrew from the concern. Mr. Porter was more optimistic, and associating himself with D. R. Moon, the mill was rebuilt on a much more extensive scale, with capacity for the manufacture of 40,000 feet per day, which in 1869 was further increased to 60,000 feet per day. In 1870 the firm became Porter, Moon & Co., and in connection with S. T. McKnight, then a dealer at that place, a wholesale yard was established at Hannibal, Missouri, under the name of S. T. McKnight & Co. These firms ultimately consolidated into the North Western Lumber Co., which was incorporated in 1873 with a capital of $300,000, afterward increased to $443,900. The incorporators were G. E. Porter, D. R. Moon and S. T. McKnight. In 1875 a second mill was erected for the manufacture of shingles as well as lumber. Mr. Porter died in 1880. Until the completion of the Chippewa Valley division of the Chicago, Milwaukee & St. Paul railroad, the product of these mills was rafted to Hannibal and other markets on the Mississippi, but after that time planing mills and dry kilns were added to the plant and shipments were made direct to consumers by rail. In 1885 the company put a band mill in place of a circular, the first to be used in the valley. The mills of the company were improved from time to time as new devices for the more economical manufacture of lumber were developed, and since 1883 the annual output of the company has averaged about 45,000,000 feet of lumber, 20,000,000 shingles and 10,000,000 lath. The present officers of the company are D. R. Moon president, J. T. Barber vice-president, S. T. McKnight secretary and treasurer. This company later purchased the property of the Eau Claire Lumber Company, of which mention will be made later.

About 1870—Van Auken built a steam mill in Fairchild township, which he soon after sold to George S. Graves; it was twice burned, the second time in 1874, and was not rebuilt. In 1876 a steam mill was erected by N. C. Foster, which was burned in 1881 and rebuilt by him, but was again burned, and the present mill, together with a planing mill was erected in 1887; this mill has capacity for cutting 25,000,000 feet of lumber and 5,000,000 shingles per year. In 1891 the business was incorporated as The N. C. Foster Lumber Co. In connection with the mill, the company operates about thirty miles of logging railroad for the supply of the mills.

In 1867 Edward Gessner built a saw mill in Lincoln township, which he operated until 1871.

Stephen S. McCann and Jeremiah C. Thomas were the first actual settlers of the locality where the thriving city of Eau Claire now stands. They came there in 1845 for the purpose of building a saw mill and manufacturing lumber from the abundant and excellent timber of the Eau Claire river, which here empties into the Chippewa. Lacking adequate means for such an enterprise as was contemplated, they started two logging camps, and pre-empted a claim at the mouth of the river upon which to build a mill, at such time as fortune should favor. In 1846 they sold a half interest in their claim to Simon and George W. Randall and formed the partnership of McCann, Randall & Thomas, and work was commenced in the construction of a dam and saw mill on the site later occupied by the Eau Claire Lumber Company's mill; the dam was completed in 1846. The flood of the following spring was remarkable for its disastrous effects, and the new double saw mill, which was just fully completed, together with the entire log stock got out the preceding winter, was swept away in an hour, and the firm was ruined; dissolution of the partnership followed, but in 1847-8 George W. and Simon Randall, in partnership with Philo Stone and William Cody, rebuilt the mill, and operated it for some years. In 1854 Cody sold his interest to a young man named Swim, and Simon Randall sold his share to a man named Pope and purchased an interest in the mill of Capt. Dix. These firms were known as Gage, Reed & Randall, and Stone, Swim & Co. In 1855 the last named firm sold the mill operated by them to Carson, Eaton & Downs of Eau Galle, who remodeled it, putting in the most modern improvements and purchasing a large body of pine timber on the tributary streams for its log supply. Gage, Reed & Randall sold their mill and pine lands together with a half interest in the village plat to Chapman & Thorp, who up to recent years conducted a highly successful business. This firm in the early part of 1857 purchased the entire interest of Carson & Eaton in the Eau Claire mill together with the pine lands, water-power, etc. of that company and began the construction of a steam mill on the site of their lower mill, which, however, was not completed until a year or two later, owing to the severe financial depression of 1857 and succeeding years.

The manufacture of lumber at mills upon the rivers and streams of the Chippewa, has never been the sole object of the hardy and enterprising lumbermen of that section. There have been a large number of mills in operation on the banks of the Mississippi river for many years, and the supply of log stock for these mills has of necessity been found in the forests of the Wisconsin, Black, Chippewa and St. Croix rivers, the aggregate production below Minneapolis having for many years approximated 900,000,000 feet of lumber and 300,000,000 shingles, nearly all of which was manufactured at points south of the Chippewa, which stream was relied upon for a goodly proportion of the log supply. With the great expansion of the lumber industry after the war, and the increased demand for logs at these mills, it became necessary to systematize the rafting industry, and in 1867 a number of lumbermen from various localities organized the Beef Slough Manufacturing, Log Driving and Transportation Company, which was incorporated with a capital of $100,000, establishing headquarters at Alma, Wis., having for its object the establishing and maintenance of a sheer boom above the mouth of the Chippewa, at the head or entrance of Beef slough, and a cross or jam boom at a point below, for the necessary works requisite in the sorting and rafting of logs ready to be towed to the mills below. Considerable opposition developed among the manufacturers of the river, who would prefer to keep the logs for manufacture at home points, it being an almost universal sentiment in the valley that the logs of the State should be manufactured in, and give employment to, the citizens of the State, but the charter was finally obtained and rates of toll were fixed at seventy-five cents per thousand feet for logs, two cents for railroad ties, and one cent for fence posts; the works were erected with capacity for handling 200,000,000 feet of logs, and contracts were made for the handling of 50,000,000 feet of logs during the spring and summer of 1868.

The Eau Claire, Dells and Improvement Company was incorporated in 1876 with a capital of $200,000. Its object was the construction under authority granted by the legislature, to the city of Eau Claire under its corporate authority, to construct a dam sixteen feet high across the Chippewa river, and to place piers with booming and sorting works in the river at suitable points, construct raft slides for passing the logs over the dam, and such other improvements as were necessary for the safe keeping and distribution of logs intended for the mills of the river, and for those which were destined for the Beef Slough boom. The company also constructed a canal one and a half miles in length from the Chippewa river to Half Moon lake, for the passage of logs to the latter place, over which 75,000,000 feet of logs are sent yearly. The works have been built at a cost of about $400,000 and the work of the company has comprised the handling of 800,000,000 feet of logs per season for many years, as many as 10,000,000 feet per day being handled, as soon as spring conditions of the river became favorable for prosecuting the work.

From the one little mill started in 1846 by McCann, Randall & Thomas, have grown up a large number of mammoth concerns in the development of Eau Claire and the valley of the Chippewa, foremost among which is the Mississippi River Logging Company, which originated with the McCann, Randall & Thomas operation and has grown to mammoth proportions, probably controlling a larger timber interest than any other organization or company in existence, its policy under the general management of Mr. Frederick Weyerhaeuser, being diverted to the acquirement and control of all the valuable timber land selections which are found in Wisconsin and Minnesota. This company is composed of a number of the most wealthy lumbermen of the Mississippi river and Chippewa valley, with abundant means for consummating their plans upon a gigantic scale.

The second mill on the Eau Claire river was built by J. J. Gage, James Reid and Captain Dix in 1848, and in 1856 became the property of Nelson C. Chapman and J. G. Thorp, who shortly after purchased the mills and pine lands of Carson, Eaton & Downs. In 1866 the Eau Claire Lumber Co. was incorporated with a paid-up capital of $160,000, Joseph G. Thorp becoming its president. In 1886 its capital had increased to $3,000,000, and with its mills at Meridian and Alma, controlled a cutting capacity of 100,000,000 feet per year. Its officers at the present time are: president and treasurer, Frederick Weyerhaeuser; vice-president, Artemus Lamb; secretary, Thomas Irvine. The Daniel Shaw Lumber Co. was located at Half Moon lake in 1856 by its founder, Daniel Shaw. It was incorporated in 1874, with a capital of $500,000; Daniel Shaw was its first president, C. A. Bullen vice-president, D. H. Ferguson its first and present treasurer, George B. Shaw being secretary until his death in 1894, succeeded by Irving D. Hull, the present incumbent. Its yearly output for a number of years past has been 25,000,000 feet of lumber and 10,000,000 shingles. The Empire Lumber Co. at Shawtown was started in 1856 by Ingram, Dole & Kennedy; in 1869 the company purchased what was known as the Eddy mill near Mount Simon, on the Chippewa river, and moved and rebuilt it on the present site. Later they associated with them the Charles Horton Lumber Co. of Winona, Minnesota, and Delaney & McVeigh of Hannibal, and in March, 1881, organized the Empire Lumber Co., with a capital of $800,000. (See Hannibal.) The cut of the two mills of this company was about 24,000,000 feet per year; of this company O. H. Ingram was president, D. M. Dulaney vice-president, W. H. Dulaney treasurer, Charles Horton secretary, C. A. Chamberlin assistant secretary, the board of directors being Charles Horton, John C. Pinkham, D. M. Dulaney, Sr., J. H. McVeigh and G. W. Dulaney.

The Valley Lumber Company originated in 1856 in the mill erected by Adin Randall, which afterward passed into the hands of Smith & Ball, the latter selling his interest in 1859 to George A. Buffington. In March, 1872, it was incorporated as the Valley Lumber Co., with a capital of $250,000. Its first officers were George A. Buffington president, C. M. Smith vice-president, C. M. Buffington secretary. In 1874 the old mill was torn down, and one of the largest mills in the valley erected on its site. Its capacity is rated at 30,000,000 feet of lumber and 20,000,000 shingles per season. In 1891 William Carson was elected president and treasurer, George A. Buffington vice-president and T. G. Foster secretary.

The Dells Lumber Co. originated in 1868 with the small circular mill built by Prescott, Burdett & Co. on an island above the Dells, the capacity of which was about 40,000 feet daily. In 1873-4 the mill was rebuilt with a circular and gang, which gave it a production of 100,000 feet daily; the business was incorporated in 1879 as the Dells Lumber Company, with a capital of $100,000, H. P. Graham being elected president, George W. Prescott vice-president, A. Burdett secretary. In the fall of 1889 the company purchased the property of the defunct Pioneer Lumber Company, the mill of which has since been operated by its purchasers, the Dells mill remaining idle. The lumber cut of the Dells company is about 20,000,000 feet yearly. A shingle mill owned by the company turns out from 6,000,000 to 7,000,000 shingles per year. The Pioneer Lumber Co. was the successor to the gang and circular mill erected in 1870 by R. F. Wilson, on the west side of the Chippewa river; the original mill was burned in 1872 and rebuilt by the Pioneer Lumber Co., which failed in 1885, when the property was purchased and has since been operated by the Dells Lumber Company, as above narrated.

The mill erected in 1860 by Arthur M. and John S. Sherman at the "big eddy," and since known as the "Eddy" mill, was purchased in 1869 by Ingram & Kennedy, and the Sherman brothers engaged for a time in the logging business, and purchased an interest in what was known as the Boyd mill, which was destroyed by a flood in 1880, in the fall of which year they began the erection of the "Sherman" mill on the east side of Half Moon lake, which was completed in 1881, being destroyed by fire a year later. The mill was rebuilt by the Shermans, who sold a controlling interest to the Chippewa Logging Company of Chippewa Falls, and it was run for some years as the Sherman Lumber Co., when the Logging Company purchased the interest of the Shermans and shut down the mill. In 1887 the property was purchased by John S. Owen and R. E. Rust, who organized the West Eau Claire Mill Co., with a capital of $42,000, John S. Owen becoming president, Peter Truax vice-president, R. E. Rust secretary and treasurer. The capacity of this mill was about 18,000,000 feet per year.

The Westville Lumber company was incorporated in 1882 with a capital of $100,000 for the manufacture and sale of lumber, owning a controlling interest in the West Eau Claire mill at which its lumber is manufactured. Its volume of business aggregates about $200,000 per year. Its officers are John H. Rust president, John S. Owen vice-president, R. E. Rust secretary and treasurer.

The Rust-Owen Lumber Co. was incorporated in April, 1882, with a capital of $300,000, having at the present time a surplus of about $1,200,000. The mills of this company are at Drummond, Bayfield county, its business office being at Eau Claire. John S. Owen was elected president, F. Drummond vice-president, R. E. Rust secretary and treasurer; the volume of business of this company is about $400,000 per annum.

The Davis & Starr Lumber Company was organized in 1886 with a capital of $100,000, afterward increased to $250,000. While the office of this company is at Eau Claire, the mill plant is located at Little Black on the Ashland division of the Wisconsin Central railroad. The original mill was burned in 1889 and was replaced immediately by a new mill containing modern improvements, and with capacity for the manufacture of 25,000,000 feet annually. The first officers of this company were William J. Starr president, H. B. Walmsley vice-president, George S. Davis secretary and treasurer. Mr. Walmsley severed his connection with the company in the fall of 1890, and George W. Lawrence became vice-president. This company also operated a small old mill at Little Black on the Wisconsin Central, which was burned in 1889, and was succeeded by a modern plant of a capacity of 25,000,000 feet yearly.

Several lumber companies have at the present time their headquarters at Eau Claire, with mills at more southerly points, among which we may name the Montreal Lumber Co., with a mill near Hurley in Ashland county, with a cutting capacity of 20,000,000 feet, which is practically an offshoot of the North Western Lumber Co., D. R. Moon being president, A. L. Osborn vice-president, J. T. Barber secretary, and Alexander Stewart of Wausau treasurer.

In 1891 the company having purchased large timber tracts in that vicinity, erected a new, modern and very complete plant at Stanley in Chippewa county, on the Wisconsin Central railroad. This mill has every modern device, and has a capacity of about 35,000,000 feet of lumber with the usual complement of lath and shingles. The supply of logs for this mill is furnished by a standard gauge railroad about thirty miles in length, owned and operated by the company. In connection with its Stanley plant the company carries on a mercantile business aggregating over $100,000 yearly.

The Sterling Lumber Company operating a mill of 10,000,000 feet yearly capacity, is located at Sterling in Clark county, and its officers are also parties in interest in the North Western Lumber Co., J. T. Barber being president, S. T. McKnight vice-president, D. R. Moon secretary and treasurer.

The North Western Lumber Co., it will be seen, now takes rank among the largest lumber manufacturing concerns in the country, its various interests, direct and through its branch companies, comprising the manufacture of upwards of 100,000,000 feet of lumber yearly, in addition to 25,000,000 shingles and from 12,000,000 to 15,000,000 lath.

Beginning in 1867 with a cut of but 5,000,000 feet of lumber and 2,000,000 lath, its facilities were increased with the increasing demand for lumber, until in 1876 their cut reached 14,000,000 feet of lumber and 5,500,000 lath, with 10,000,000 shingles. Yearly increasing their facilities the cut of 1881 had reached 30,000,000 feet, with 10,000,000 lath and 20,000,000 shingles, and ten years later had increased to 70,000,000 feet, with 15,000,000 lath and 25,000,000 shingles. The total amount of production of this company from 1867 to 1897 at its various mills aggregates 940,000,000 feet of lumber, 225,000,000 lath and 370,000,000 shingles, or if shingles and lath be reduced to board measure, the figures of total production reach the enormous volume of one billion and seven million feet, while from the employment in 1867 of but 78 men, and a yearly pay roll of $26,676, that of 1896 included the employment of 1,282 operatives with a yearly pay roll of $375,878.16. Perhaps nothing could more practically portray the expansion of the lumber trade of the past thirty years, than does the history of the North Western Lumber Company.

Eau Claire has for many years ranked among the larger lumber manufacturing sections, its yearly production aggregating 200,000,000 feet of lumber and 100,000,000 shingles, with 50,000,000 pieces of lath, of an aggregate value of about $3,000,000, and giving employ to about 1,800 operatives.

In 1853 George and William F. Holbrook built a saw mill and furniture factory on Arkansaw creek in Pepin county which they operated until 1870, when they were joined by James Pauley, when the mill and factory were enlarged; in 1881 it was purchased by E. C. Bill.

W. F. Prindle, George Ellsworth and W. E. Hays built a mill of 15,000 feet daily capacity at Durand in 1857, which after passing through several hands, was in 1889 purchased by the Davis & Starr Lumber Co. of Eau Claire, who rebuilt it shortly after. Samuel L. Plummer built a water-power mill on Bear Creek in 1855, which in the following year was purchased by his cousin, Nathan Plummer, who ran it as long as there was timber in the neighborhood to be cut.

At Barron in Barron county, George Parr, John Post and S. J. Parr built a saw, shingle and planing mill in 1878, which a few years later was reconstructed by the addition of a double rotary of 30,000 feet daily capacity; this mill burned in 1890 and a steam mill was erected with a capacity of 40,000 feet of lumber daily. A steam shingle mill of 40,000 feet capacity was erected close by, the concern being known as "The Parr Manufacturing Co." In 1886 W. B. Judd erected a large saw and stave mill, principally for the manufacture of hardwood lumber staves and heading, its capacity being 25,000 staves and 10,000 headings per day. In 1876 Knapp, Stout & Co. Company, erected a steam saw and planing mill in Chetek township, which they operated until 1888 and until the timber was exhausted. Willis Glaze built a steam mill at Chetek in 1888, which a year or two later was removed to a location on the Minneapolis, St. Paul & Sault Ste. Marie railroad. The Paskin Lake Lumber Co. in 1887 erected a steam mill on the same road at Paskin lake, Barron county. Mansfield & Lang built a steam saw mill with planers, shingle and lath machinery at North Cumberland, this later was purchased by N. L. Hunter, who rebuilt it after its destruction by fire, giving it capacity for 60,000 feet of lumber and 120,000 shingles per day.

The present Beaver Lake Lumber Company was originated in 1880 by T. P. Stone and J. C. Maxwell, who had purchased about 100,000,000 feet of pine timber near Cumberland. In the following year they organized the Cumberland Lumber Co., which a few months later was transferred to the Beaver Lake Lumber Company, of which H. E. Southwell was president, Jeff T. Heath secretary, and L. B. Royce treasurer, the capacity of the mill being about 25,000,000 feet per year. After several changes in ownership the plant was sold to Griggs, Foster & Miller, who incorporated the Beaver Dam Lumber Co., and in 1891 erected a band saw and shingle mill to cut 60,000 feet of lumber and 175,000 shingles daily. Sprague Bros. built a saw mill at Sprague on the line of the railroad in 1880. In 1870 Knapp Stout & Co., Company built a water-power saw mill at Rice Lake, which in 1890 was leased to the Rice Lake Lumber Company, and thoroughly remodeled, and which, with a steam saw mill running two bands and a gang, erected by the Rice Lake Co., gives them capacity for cutting 25,000,000 feet of lumber and 20,000,000 shingles per annum, they having extensive planing mills and assorting yards for a car trade. Of this company O. H. Ingram was president, William Carson vice-president, C. A. Chamberlin secretary, W. K. Coffin treasurer. At Turtle Lake Stephen H. Richardson built a mill in 1879, which later was purchased by the Parr Manufacturing Co., and removed to Barron. In 1890 J. W. Stone erected a saw and shingle mill at Turtle Lake, which was also sold to the Parr Manufacturing Co., and removed to Barron in 1891. Andrews & Perley also built a mill at Perley on the Chicago, Minneapolis & St. Paul railway.

The Wisconsin Valley railroad (see railroads) in its building through the State of Wisconsin in 1876-8 gave rise to the building of many mills at the villages which were established upon its line. At Fifield, in Price county, the Fifield Manufacturing Company was incorporated in the fall of 1889 and erected a steam saw mill having a sawing capacity of 100,000 feet per day, and a planing mill of 75,000 feet capacity, employing 100 men. At Ogema on Little Jump river, B. M. Holmes in 1874 erected a steam mill of 50,000 feet daily capacity. In 1882 the Jump River Lumber Company was organized, and erected a mill at Prentice, calculated to cut 50,000 feet per day, to which in 1884 a planing mill of equal capacity (since increased to 100,000 feet per day) was erected. This company operates a logging railroad six miles in length, and employs about 600 men. The Phillips Lumber Co. was incorporated in 1882 at Phillips on Elk Lake on the line of the Wisconsin Central road, and erected a saw, shingle and well equipped planing mill, which latter was some years later turned into a box factory, and a new and better mill erected to accommodate the extensive car trade, direct to the retail yards of the west, which had now become a leading feature with interior mills, which competed with the great wholesale markets of Chicago and the cities on the Mississippi, which had hitherto held a monopoly of this branch. This company erected eight dry kilns having capacity for seasoning 75,000 feet daily, ready for the planer. The mill cut running night and day was 200,000 feet per day, or 40,000,000 feet per year, with 12,000,000 shingles and 12,000,000 lath. The company operates twenty-nine miles of logging railroad with two locomotives and sixty cars. In 1888 the company was reorganized as the John R. Davis Lumber Co., John R. Davis president, B. W. Davis secretary.

A steam mill was erected at Woodville, St. Croix county, in 1874, by J. S. Anderson, which was destroyed by fire in 1876, and in the following year William T. Everson and O. C. Meggs built a steam mill which in 1879 was sold to the Woodville Lumber Company, of which J. G. Ingram was president and C. W. Richards secretary; this mill had a cutting capacity of about 30,000 feet per day in pine and hardwoods, together with shingles and lath. At Baldwin in this county, D. R. and L. M. Bailey erected a steam saw and grist mill in 1873, which was later owned and operated by Bartlett & Robinson until 1882. In 1874 a steam saw and stave mill was erected by Capt. William Allyne, who ran it until his death in 1879, after which it was sold to the Hall & Dunn Barrel Company, and in 1886 was removed to Barron. In 1886-7 the Glenwood Manufacturing Co., built a steam saw mill with planing mill and hub and spoke factory at Glenwood, which have since been largely increased in capacity. Karke, Russell & Aldrich built a mill at Butternut in Ashland county, in 1879, which later was owned and operated by Henry L. Bessee. In 1879 a mill was built at Westboro, Taylor county by J. Demean, William Taylor, and James Ritchie, which later was owned and operated by J. Duncan. C. C. Palmer about the same time erected a mill at the same point.

From this somewhat lengthy account it will be discerned that the valley of the Chippewa and the country watered by its tributary streams has proved a by no means unimportant factor in the development of the forestry interests of Wisconsin and the west. The building of the Wisconsin Valley & St. Paul, Minneapolis and Sault Ste. Marie railroads directly across the State, opened up much territory not readily accessible to the main Chippewa river, and led to the erection of many mills, which found in these roads a means of readily reaching the consuming markets of the west with their lumber product. From 1880 to 1895 the reported cut upon the line of the Wisconsin Central amounted to the vast sum of 5,270,488,481 feet of lumber (including 2,610,465,100 shingles reduced to log measure) and of this amount the mills properly included in the territory of the "Chippewa Valley," must be credited with a large proportion, to which must also be added a large quantity produced upon the line of the other roads traversing the State, and which is included in the 4,013,227,020 feet of lumber (including 1,590,494,900 shingles reduced to log measure) credited to the Chicago, St. Paul, Minneapolis & Omaha (Lumber Line), and in the 5,529,753,190 feet (including 2,287,345,450 shingles) elsewhere mentioned under the head of "miscellaneous" mills of Wisconsin. Summing up the known and reported production of the Chippewa river as represented by the mills at Eau Claire, Menominee, Chippewa Falls, etc., where by the addition of an estimated 20 per cent to the 7,589,868,058 feet of lumber and 3,069,902,940 shingles reported as cut between 1873 and 1895, to account for the production previous to 1873, a gross total of 9,107,841,669 feet is found to which adding an average of 100,000,000 feet of logs per year which for many years previous to 1868 had been handled through the Beef slough for mills on the Mississippi river, to the reported output of the booms from 1873 to 1896 reaching a total of not less than 10,000,000,000 feet, and we venture little in naming an estimate of fully 30,000,000,000 feet of timber as the forest production of the Chippewa valley since the first saw mill was undertaken by Constant Andrews in 1819, requiring at the low estimate of 5,000 feet per acre, the denudation of 6,000,000 acres, equal to 9,375 square miles, or more than 260 townships of thirty-six square miles each. This would require 2,000,000 cars of 15,000 feet each stretching a distance of 12,500 miles or one-half around the earth. If the boards were placed end to end they would extend a distance of 5,681,818 miles, and would build a fence four feet high one hundred and forty-six times around the globe.

William Carson.—No more interesting or unique personal history of the lumbermen of the northwest will ever be written than is that which relates to the career of the late William Carson of Eau Claire, Wisconsin. Mr. Carson was born at Inverness, Lower Canada, in 1819. His parents, William and Elizbeth (Robertson) Carson, were Scotch, the sturdy personality and vigor of which race were manifest in his career. William was thrown upon his own resources at the age of twelve years, and from that tender age was forced to earn his living by the aid alone of his own native resources. In 1836 he came to the United States, stopping for one year at Cambridge, Massachusetts. In 1837 he made his way to the west and after spending a short time in southern Illinois went to St. Louis, Missouri, where he found work during the winter. In 1838 being of a venturesome disposition, and having heard of the vast pineries of Wisconsin, bringing to his mind the forest region of his boyhood in which he had witnessed great lumbering operations, he decided to visit the wild region of the Chippewa valley, and reaching the Eau Galle river found Captain George Wales and Thomas Savage, in company with a "Captain" Dix, operating a saw mill which had been erected in 1835-6 by Captain Wales for Street & Lockwood, and finding that these parties were cutting timber on government land, and assuming that they had no rights superior to those of any other person, joined with a down-east Yankee, Henry Eaton, and together they began getting out square timber and shingles, the former by hewing, and the latter by riving and breasting, with intent to raft the timber and to load the shingles on the raft for floating down the river to a ready market which they knew awaited them. After strenuous but unsuccessful efforts to dislodge these competitors, the Eau Galle company decided to sell an interest in their mill to the intruders, and thus maintain the monopoly which they had established and prevent the competition which they feared. Not long after this Savage and Dix withdrew and the firm of Carson, Eaton & Wales continued the business, Wales being the financial man of the concern. Wisconsin was at this time a territory, and the region about the Chippewa little more than an unexplored wilderness, there not being a dwelling house nearer than Prairie du Chien. Mr. Carson was optimistic as to the future of the region, and with prophetic eye saw a future which would bring great numbers of people to so finely timbered a region, and during his first year in the valley pre-empted the ground upon which North Eau Claire was soon after located; this claim he sold in the following year. The mill of Carson, Eaton & Wales was a large one for the day, having a cutting capacity of 10,000 feet per day, with two upright saws of the gate variety, the only kind known to the times. After operating this mill for several years, Captain Wales sold his interest to his partners, Carson and Eaton, who continued under that designation for some years, when they were joined by Mr. E. D. Rand, and later Mr. Eaton selling his interest to his partners, the firm of Carson & Rand was established, and with many enlargements and improvements to the mill, operated it until 1874, when through the scarcity of timber on the Eau Galle, the era of seeking timber at head waters and on long hauls not having as yet been inaugurated, the further operation of the mill was not thought profitable; the firm, however, continued to operate a flour mill which the increasing growth of the section had led them to erect, in connection with the mercantile business which they had established. In 1874 Mr. Carson removed to Eau Claire, where in connection with Mr. Rand he purchased a large interest in the Valley Lumber Company of which Mr. Carson was elected president and treasurer, positions held by him from that time until his death in January, 1898. With increasing prosperity and ability, Mr. Carson from his first advent in the country, invested his means in timber lands, each passing year but confirming his opinion of its ultimate value, and the demands which the growing west must inevitably make for building material, and his ultimate holdings vied in extent with those of the largest operators on the Chippewa river.

In 1852 Carson & Eaton formed an alliance with Elbridge D. Rand of Burlington, Iowa, who had some years previously established a lumber business in that city, (see sketch of E. D. Rand) and under the designation of Carson & Eaton at Eau Galle, and E. D. Rand & Co. at Burlington, formed a combination which for many years was recognized as one of the strongest known to the lumber trade of the northwest. At a later date Mr. Eaton sold his interests to his partners, and Carson & Rand continued the business until the organization of the Valley Lumber Company of Eau Claire in 1874, of which, as stated, Mr. Carson became president and treasurer, and of which he continued in the active management until his death. The Burlington business was continued under the old designation until 1877, when it was incorporated under the name of the Burlington Lumber Company. Mr. Carson was succeeded in the office of president of the Valley Lumber Company by his son William Carson, Jr., who is also vice-president of the Burlington Lumber Company, and as well of the Rand Lumber Company, as also the Rice Lake Lumber Company, with which Mr. Carson was largely connected, its mill at Rice Lake containing two bands and one gang, with a yearly production of about 35,000,000 feet. The mills at Burlington, starting upon a small scale common to the early day, have undergone repeated enlargements, and with the addition from time to time of more modern and improved devices has two circulars and a gang with a daily cut of 150,000 feet of lumber, and an annual production of 20,000,000 feet of lumber and 6,000,000 shingles; the cut of the Valley Lumber Company being 25,000,000 feet of lumber and 19,000,000 shingles. The Carson & Rand Lumber Company of Keokuk, Iowa, is also one of the largest among the many important lumber companies of the Mississippi, but has no saw mill at that city, "pulling" the lumber cut of the Valley mill which is rafted from Eau Claire, in addition to large supplies obtained from other sources. This company also operates a large sash, door and blind manufactory at Keokuk.

As previously shown, Mr. Carson was essentially a pioneer of the Chippewa valley, as well as one of its earliest lumbermen. He at an early day erected the first brick building at Eau Galle, it being the first brick structure north of Prairie du Chien, and built with the first brick which were manufactured in this then most northerly region. He also raised the first wheat which was drawn from the soil of the Chippewa valley, hauling it by team over the ice to Prairie du Chien to be ground at the nearest mill which then existed in the entire region, there not at that time being a grist mill in operation in the entire State of Minnesota. Mr. Carson was a great lover of good stock, especially horses, and had the honor of introducing the first horse in the Chippewa valley, his interest in the equine race continuing to the end of his life, at which time he was the possessor of some of the finest blooded stock to be found in the northwest. Mr. Carson was a public-spirited man who was never backward in investing his means in any worthy enterprise which promised to advance the interests of Eau Claire or the Chippewa valley. Beside the extensive lumber interests which have been mentioned, and to which may be added the fifteen country lumber yards operated by the Burlington Lumber Company at various points in the State of Iowa, he was to a greater or less extent interested in many other lumber operations in Wisconsin, and was a stockholder in the Chippewa Lumber & Boom Company of Chippewa Falls, Wisconsin. He was a stockholder, director and vice-president of the Eau Claire National Bank, and largely interested in many other enterprises of a public nature, his excellent and practical business ideas assuring success to any enterprise with which he became connected. In no sense a politician, he was a Democrat of the old school, always exerting his influence in behalf of all measures looking to good government, and an advancement of the nation's interest.

He was married in 1847 to Miss Mary Edmonds Smith, a native of Rutland, Vermont, who in childhood accompanied her parents to Illinois, and thus became a pioneer of that great State. Mrs. Carson died in 1887 survived by five daughters and one son: Jesse Virginia, wife of James McIntyre, of Eau Claire; Mary Carson; Isabella, now Mrs. Robert Hager, of Atlanta, Georgia; Kate, now Mrs. T. K. Long of Chicago, Ill.; William Jr., of Burlington, Iowa, and Fanny Wright, now Mrs. William Lockwood of Eau Claire. His son, William Jr., succeeds as executor to the care of the large property accumulated by Mr. Carson during his long and eventful life, while, as previously stated, occupying the position of vice-president in several of the more important business enterprises inaugurated by his father. Throughout his eventful life William Carson was noted for his strict integrity of character, the suavity of his intercourse with all who had business dealings with him, and no less for his attachment to the region

William Carson

and the city in which his life was to so great an extent passed.

As we contemplate the present condition of the Chippewa Valley with its many and beautiful cities, teeming with enterprising citizens and filled with manufacturing enterprises; as we look upon the great west with its blooming and fertile farms, its populous cities extending to the far Pacific, with a civilization and an extent of production which challenges the admiration of the world, it is difficult to realize that we are now reading of one who, being a settler in the outskirts of civilization, at a time when the Indians still disputed the right of the white man to settlement in a region which is now practically the center of a populous nation containing no less than 70,000,000 people, was permitted to see this grand transformation in all its vastness and glory, and at the ripe age of 79 years to lay down life's burden on the 4th of January, 1898, to be mourned by thousands who had known him but to respect and love, as a faithful husband and father, an enterprising merchant and a most useful citizen.

Knapp, Stout & Co. Company.—One of the most important of Wisconsin's commercial interests is her lumber, and no historical sketch of the northwestern part of the State would be complete that did not contain an enlarged account of the beginning, growth and remarkable success of a corporation already mentioned in these pages which has contributed so largely toward developing this interest. As has often been quoted, the finger of time is one of the most satisfactory and reliable indorsers of any business enterprise. Many people may, with justification, halt and refuse to listen to the solicitation of a beginner, but the voice of the old, established house always carries with it attention and respect. Thus it is with the house of Knapp, Stout & Co. Company. It would be impossible to embrace in this volume a full and complete history of this company and its business undertakings and successfully accomplished labors during the past half-century, hence a brief statement of some of the important events and transactions that have characterized its past history must suffice.

William Wilson, a resident of Fort Madison, in the then territory of Iowa, who had previously had some experience in lumbering operations in northern Pennsylvania, heard of the vast pineries and excellent inducements for investment on the Chippewa river and its tributaries in the territory of Wisconsin, and made a personal examination. He returned to his home full of enthusiasm and confidence, and told friends of the rare opportunity for investment in pine lands in the manufacture of lumber. He found in John H. Knapp, also of Fort Madison, one who saw like himself his life's best opportunity, and who earnestly and enthusiastically offered to join him in an effort to gain a competency in the almost uninhabited wilds of the Chippewa valley.

In the year 1846 the two men came to what is now the city of Menominee in the State of Wisconsin. They purchased a half interest in a little single sash saw mill situated at the mouth of Wilson creek, within the limits of the now city of Menominee, for which they paid $2,000, and commenced their lumbering operations at the mill on the first day of June of that year. In the autumn of that year the remaining interest was purchased by Mr. Wilson and Mr. Knapp. The copartnership contract between these partners was executed on the 19th day of May, 1846, and is to-day one of the many interesting and instructive mementos of the company's early business life, lovingly cherished and safely preserved in its fire-proof vaults. On August 19, 1850, Andrew Tainter, of Prairie du Chien, purchased a one-fourth interest in the firm. On August 20, 1853, Henry L. Stout of Dubuque, Iowa, bought a one-fourth interest in the firm, and the name of the firm was changed to Knapp, Stout & Co. May 1, 1854, Thomas B. Wilson became a member of the firm, and a number of years later John H. Douglas of St. Louis, Missouri, a nephew of John H. Knapp, also became a member of the firm.

March 18, 1878, the members of the firm became duly incorporated pursuant to articles of incorporation by them made and executed, and in which the corporate name of "The Knapp, Stout & Co. Company" was assumed. The capital stock of the corporation was fixed at $2,000,000, with John H. Knapp, Henry L. Stout, Andrew Tainter, William Wilson, Thomas B. Wilson and John H. Douglass, stockholders. John H. Knapp was made president, Thomas B. Wilson secretary, and John H. Douglass treasurer. In March, 1882, the capital stock was increased to $4,000,000. A few years later James H. Stout and Frank D. Stout, sons of H. L. Stout, Louis S. Tainter, son of Andrew Tainter, and Henry E. Knapp, son of John H. Knapp, became stockholders in the corporation; and soon afterward Peter E. Wilson, eldest son of Thomas B. Wilson, and William W. Cassidy, a nephew of William Wilson, of Read's Landing, also became stockholders. In 1886 John H. Knapp, on account of falling health, declined serving longer as president of the corporation, and Henry L. Stout was elected president. With this exception the officers have continued the same from the organization of the corporation. John H. Knapp died in the autumn of 1888, and his widow and children, in the settlement and distribution of his estate, became stockholders in the corporation. William Wilson died in the summer of 1892.

The little single sash saw mill with which the company first began business had a capacity of manufacturing from 5,000 to 7,000 feet of lumber per day, when run to its full capacity, and during the sawing season from 125,000 to 250,000 feet was manufactured. The labor of cutting the timber, sawing and rafting the lumber, running it to the market and selling it, in those early days devolved mainly upon the proprietors. There was at that time no market for the sale of lumber, or the purchase of food, or any of the commodities essential to living, even on the frontier, nearer than Prairie du Chien. The only means of communicating with the business world was by keel boat down the river, or by the Indian trail.

In the year 1850 a new mill, 60x100 feet, was built by the firm, and two years later a gang saw was placed in the mill. This mill was burned December 26, 1856, and the firm then erected a large saw mill on the same site, which has been enlarged from time to time, and is now in operation. They bravely and energetically met every obstacle and disadvantage, each year adding a little to the plant and the resources of the firm. All the means that they could spare was invested in pine lands, which in those days were obtainable at low prices. They could easily see that at no far distant day the value of uncut pine lands would of necessity become greatly enhanced, and on this account as well as the maintenance of their business they made some large purchases. Among these was the purchase from C. C. Washburn in 1863 of over 10,000 acres of pine land and the mill at Waubeek, also over 100,000 acres, bought in 1879-80 of Cornell University, Messrs. Haley & Pitcher and the North Wisconsin and Omaha railroad companies. Other purchases made from time to time on the Red Cedar and tributaries aggregated a much larger amount. As the time approaches when the pine timber will be exhausted in Wisconsin, the company looks to other localities for investment; and during the past five years they have purchased over 400,000 acres of southern pine lands situated in Missouri, Arkansas and Mississippi. The company also owns extensive and valuable real estate properties at St. Louis, Missouri, Dubuque and Fort Madison, Iowa, and other business centers. The saw mills of the company are located at Cedar Falls, Menomonie and Downsville in Wisconsin, at Lapeer, Missouri, and Fort Madison, Iowa. The combined sawing capacity of these mills is over 750,000 feet of lumber per day, allowing eleven hours' work each day. The mills in Wisconsin are cutting 650,000 feet of lumber per day. This does not include lath and shingles.

The principal lumber yards are at St. Louis, Fort Madison, Dubuque and Cedar Falls. The lumber in all the yards located outside of Wisconsin is rafted at the mills and run down the Red Cedar, Chippewa and Mississippi rivers to the point of destination. The number of employes on the pay roll of the company has averaged about two thousand during the past fifteen years. This corporation, either in its corporate or firm name, is one of the oldest lumbering institutions in the country, and stands at the head of the list of lumber manufacturers in the United States. Hundreds of their employes have been able, through their employment and aid, to purchase and pay for homes, purchase and improve farms. Nor is this all, it may safely be said that no other lumbering concern in the northwest has borne so largely, and yet uncomplainingly, the burdens of taxation, or paid so much into the public treasury. During the past thirty-five years this company has paid as a firm and corporation over $1,500,000 taxes in Wisconsin alone. This does not include taxes paid by individual members nor taxes paid in other states. During the past thirty years, as a firm or corporation, they have paid in taxes in the several states where their business and property has been located more than $2,000,000. Their average manufacture of lumber for the past twenty-five years has been not far from 85,000,000 feet a year, mostly in Wisconsin. Doubtless there are many things that have contributed to the success of The Knapp, Stout & Co. Company, yet the success that has seemed to crown their efforts from the day Wilson and Knapp took charge of the little saw mill, over fifty years ago, until now, is largely due to the fact that they have all been workers, and that they have always pulled together. In the assignment and distribution of labor each has taken charge of that branch of business for which he was best fitted, Every branch of business has been carefully and ably superintended. Losses, failures, annoying and expensive litigation, so common among similar corporations, have been almost unknown in the history of The Knapp, Stout & Co. Company.

On Wednesday, August 12, 1896, the members of the corporation, their families and invited guests assembled in Menomonie to celebrate the semi-centennial anniversary of the birth of this vast enterprise. The occasion was a most enjoyable one. The close of this semi-centennial found this corporation, as it is now, one of the strongest and soundest in the northwest, and the signal ability that has marked its past career augurs a no less bright and prosperous future.

Short sketches of the individual members of this great business house are eminently appropriate in this connection.

John H. Knapp.—It is a pleasure to chronicle the history of a man whose life was one of honor and usefulness, and whose strong individuality and mental powers have left their impress upon the community in which he so long resided. Such a man was John H. Knapp, one of the founders of the celebrated firm of Knapp, Stout & Co. Company. He was a native of the Empire state, born in Elmira, March 29, 1825, and died in Menomonie, Wisconsin, October 14, 1888. He was the youngest of the four men whose genius and ability laid the foundation of the great corporation, and the first to pass away. Mr. Knapp's remote ancestors were English and his branch of the family came from that country to this in 1630. His father, General John H. Knapp, came west during the Blackhawk war and participated in its compaigns. The family moved to Fort Madison, Iowa, in 1835 and was the third family to locate in Lee county. General Knapp died in 1837. At the age of twenty the subject of this sketch went east and entered a collegiate institute at New Haven, Conn., where he remained one year. Returning to the west and having attained his majority, he came into possession of $1,000. It was at this time (1846) that he met Capt. Wilson, who had returned from a prospecting tour to the pineries of the Chippewa valley. His description of the new country with its wealth of pine found in Mr. Knapp an eager listener, and they soon formed a partnership to engage in the manufacture of lumber. Together they went to this valley and about June 1st bought a half interest in David Black's saw mill on Wilson creek. Thus in the wilderness Mr. Knapp began his life's work with a faith that never wavered. By hard labor and good management the business prospered. The first four years was a struggle for existence, and Mr. Knapp and Captain Wilson fought the battle side by side. Their undaunted courage and persistency of purpose made possible the success afterward achieved. With the advent of Captain Tainter and Mr. Stout, the firm assumed the name of Knapp, Stout & Co. When the present corporation was organized Mr. Knapp was elected its president and held the position until 1886, when on account of failing health he declined a re-election; for many years he was the active manager of the company's large mercantile operations, which he conducted with marked success. He always took a deep interest in public affairs, serving as chairman of the town of Menomonie, and for several years as director of the school board; he was also presidential elector on the Republican ticket in 1876. Mr. Knapp was a liberal supporter of educational, charitable and religious institutions.

On the retirement of Mr. Knapp from active duty in connection with the affairs of the company, his eldest son, Henry E. Knapp, succeeded him in the management of the mercantile, flour mill and office departments; he is the assistant secretary of the corporation, and attends personally to the payment of all the employes.

Capt. William Wilson.—In the early days there drifted within the borders of Wisconsin men of splendid talents and marked genius, who sought new scenes and new surroundings in which to further their interests. Among them was Capt. William Wilson, who was born in Lycoming county, Pa., February 9, 1807. His parents were natives of England. In early life he engaged in farming and lumbering on the Susquehanna river. He came west in 1836 and located at Fort Madison, Iowa, where he lived about ten years, engaged in various enterprises and taking an active interest in local affairs. Having heard of the vast forests of pine in northern Wisconsin and the opportunities for the profitable manufacture of lumber, he decided to visit that region and investigate for himself. In the spring of 1846 he visited the Chippewa valley, then a wilderness with its wealth of uncut pine. He went up the Red Cedar river and bargained for a half interest in a saw mill at the mouth of Wilson creek. Returning home, he persuaded John H. Knapp to join him in this business venture and furnish the necessary capital. They bought a half interest in the mill then owned by David Black, and the new firm began business June 1, 1846; later they bought the interest of Mr. Black, and subsequently Andrew Tainter and Henry L. Stout were admitted to the firm. The four partners each owned an equal interest under the name of Knapp, Stout & Co. From this humble beginning, under wise management, have developed in succeeding years the vast business of the present corporation. To Captain Wilson's rare foresight and tireless energy a large share of this success is due. He always took an active interest in public affairs. When the town of Menomonie was organized he held the office of chairman for several years. He caused the original plot of the village of Menomonie to be surveyed, and when the city was incorporated in 1882, he was unanimously elected its first mayor; in 1856 he was elected state senator and served one term. Every movement made for developing the resources of Menomonie and vicinity found in him an ardent and energetic promoter. He rendered valuable aid in the organization and construction of the old West Wisconsin railway, and was an earnest champion of the Dells improvement at Eau Claire. His faith in the grand possibilities of this new country never wavered, and during his long and eventful life he contributed his full share to hasten its growth and development; endowed by nature with great mental and physical strength, he easily carried the burden of his manifold responsibilities through sunshine and storm. "There were giants in those days," and Captain Wilson was one of them. He died at his home in Menomonie, September 4, 1892, aged 85 years.

Capt. Andrew Tainter.—The subject of this sketch finds an appropriate place in the history of those men whose sterling integrity, force of character and whose ability and good sense made The Knapp, Stout & Co. Company what it is. He is a product of New York, born in Salina, July 6, 1823. His ancestors were of Scotch-Irish descent and came to this country two centuries ago. In 1832 he came west with his parents, and the family settled at Prairie du Chien, Wis. Here he grew to manhood and, in 1845, attracted by the promising field of labor in the pineries for an industrious young man, he went to Chippewa Falls and worked in Bronson's saw mill for a year at twenty dollars per month. In 1847 he operated a mill on Irvine creek, about two miles below Menomonie, in partnership with Blois Hurd. He sold his share in the mill the next year, and was engaged in getting out square timber until August, 1850, when he bought a one-quarter interest in the Knapp & Wilson firm that has since developed into the great lumber concern of the Knapp, Stout & Co. Company; upon Capt. Tainter devolved the task of supplying the mill with logs. In 1858 the firm brought out the first steamboat used by them on the Chippewa river, and Capt. Tainter commanded the craft for about two years. As the business of the company expanded and their logging operations extended farther up the river, the task of furnishing the mills with logs became one of great magnitude; the construction of the logging camps, the furnishing of supplies for men and teams, cutting and banking the logs during the winter, and driving them to Menomonie in the spring, demanded an indomitable energy and rare executive ability; the uniform success with which this important branch of business was conducted year after year entitles Mr. Tainter to high rank among the great captains of industry. About ten years ago he retired from active duty in this department, and since that time his son, Louis S. Tainter, has conducted that part of the work with signal ability. Captain Tainter is public-spirited, generous and progressive. The erection and maintenance at Menomonie of that handsome building, the Mabel Tainter Memorial, with its free library and reading room, is an evidence of his wise liberality. His love for and admiration of fine horses has found expression in the beautiful stock farm, Oaklawn, with its spacious buildings, splendid race track and numerous fast thoroughbreds of the best racing blood in the country. With a winter residence in the orange groves of Florida and his home in Menomonie for the summer, he is passing the evening of his long and useful life in comfort and enjoyment. May he long be spared to enjoy the rewards of his years of labor.

Henry L. Stout.—In Mr. Stout is found a man whose career through life has been a decidedly interesting one, showing the shrewdness, business ability and competency which can be attained by those possessed of energy and determination. He was born at Ringoes, Hunterdon county, New Jersey, October 23, 1814. The progenitor of the Stout family in America was Richard Stout, who came to this country from Nottinghamshire, England, and settled at what is now Middleton, New Jersey; hence the family is one of the oldest in that state, dating back nearly 250 years. Mr. Stout came west in 1836 and settled at Dubuque, Iowa, where he now resides. In 1853 he bought a quarter interest in the firm of Knapp, Tainter & Co., and thereafter it assumed the name of Knapp, Stout & Company, until its incorporation as the "Knapp, Stout & Co. Company." He brought into the service of the company his great abilities as a financier, and with his advent a new impulse was given to the business. It rapidly expanded as year after year he sold the products of the mills in the down river markets, and furnished the "sinews of war" for more extensive campaigns in the forests of Wisconsin. His high commercial standing was an element of great strength and importance to the company in its struggles for a commanding position in the industrial world. Mr. Stout has also been interested in other business enterprises that have brought him large returns, and he is one of the wealthiest men in the State of Iowa; he takes a great interest in public affairs, and especially matters pertaining to the welfare of his own city. His popularity at home is attested by the fact that he was elected mayor of Dubuque five consecutive years. Although Mr. Stout never resided in Menomonie, he has always favored every movement that would promote its development and add to its prosperity. He is the oldest living member of the great corporation with which he has been so long connected, and his presence at the celebration of its semi-centennial in 1896 was one of the notable features of that important event.

John H. Douglas, of the Knapp, Stout & Co. Company, was born at Fort Madison, Iowa, June 20, 1836, and was the first white child born in that town. His parents removed from Elmira, N. Y., and located at Fort Madison in 1835, his father having visited the neighborhood in 1833. They resided there for many years, and during the youth of their son gave him such educational advantages as were found in the common schools of that place, supplemented with a course of study at the Academy of Knox College at Galesburg, Illinois. From 1851 to 1853 he was a clerk in a general variety store at Elmira, N. Y., and 1854 entered the employ of The Knapp, Stout & Co. Company (then Knapp & Tainter), in the lumber business, and was for a number of years engaged with them in selling rafted lumber, etc., from the mills at Menomonie, Wis., along the Mississippi river and St. Louis, Mo. In 1872 he took up his residence at St. Louis, where he has since been in charge of the yards and business of the company, in the disposition of its mill product from that point. In the incorporation of the company in 1878, Mr. Douglas was elected a director, and as well treasurer of the company, and with continued residence at St. Louis still continues to represent the interests of the company in that city.

He was married in 1858 to Miss Caroline A. Durfee, a daughter of Joseph and Margaret Durfee of Marion, Ohio, and has two sons and one daughter.

Frequent and prominent mention is made in the history of the Chippewa valley of many of its more prominent lumbermen and citizens of whom it is highly proper that we should give personal sketches.

Daniel Shaw (deceased).—Life is but a preparatory state for the world to come. Here man learns a few isolated facts, and from these he evolves related truths, and only at the time of saying "vale" to the world is he a man in stature and intellect. It is so with everyone, and not less so to the man whose name is above. He developed, he acquired, he struggled, he died, when to the finite mind he was only ready to live well; but a nobler life is continued above. Daniel Shaw, whose death occurred October 22, 1881, was one of the most prominent lumbermen in the northwest and one of the most highly respected men of Wisconsin. He was a product of the Pine Tree state, born at Industry, March 30, 1813; son of Daniel and Mehitabel (Gilman) Shaw, natives of Tamworth, N. H., and of English origin. His father was a farmer at one time in his life but later became a dealer in meats at Bangor, Me. He was a man of character and ability, and was well known for his many good qualities. His death occurred at Bangor when sixty-eight years old. During his youth Daniel Shaw secured but a limited schooling, but his native ability, good sound sense, and keen insight into various enterprises, took the place of his limited education to a great extent, and he became a most successful business man. In 1833, when twenty years old, he began lumbering on his own account during the winter season in his native state, but previous to this he had had considerable lumbering experience. In 1851 he went to Honeoye, now Alma, Alleghany county, New York, and was in the lumbering trade there for five years. Thinking the prospects much better in the northwest he went to Wisconsin in 1855, and after thoroughly exploring the Chippewa valley, located there for future operations. During the following year he moved to Eau Claire, purchased a half interest in a large tract of pine land on Chippewa river and tributaries, and entered actively upon his career as a lumberman. He and his brother-in-law, C. A. Bullen, at once got out logs and built a mill on the present site of the Daniel Shaw Lumber Co. location, in the then wilderness. This mill was destroyed by fire in 1867 and a larger one built soon after. In 1874 the business of Daniel Shaw & Co. was incorporated under the name of the Daniel Shaw Lumber Co., with $500,000 capital, and Mr. Shaw remained its president until his death. He was thoroughly at home in the lumber business, spending much time in the camps, where he shared the hardships of his men, becoming thoroughly familiar with the every detail of camp life. He was married on the 26th of September, 1841, in Industry, Me., to Miss Ann Foster Hutchins who was not only a most excellent wife and affectionate mother, but a Christian in every sense of the word. They were the parents of three children: Charles, who died in 1863, Eugene, and George B., (who died in 1894). Eugene is now a member of the Daniel Shaw Lumber Co. Mrs. Shaw was born in Industry, Me., January 31, 1815, and was the daughter of James and Anna (Sullivan) Hutchins, natives of Maine. Mr. Hutchins was a sea-captain in early life, but later embarked in merchandising. He died at the age of eighty, and his wife when but fifty-six years old. Mr. and Mrs. Shaw lived happily together for forty years. Both were well-known for their many charitable deeds. Although not a member of any church, Mr. Shaw was closely identified with the Congregational church where he frequently attended services. Originally a Whig in politics he united with the Republican party upon its formation, but never accepted office although frequently requested to do so. He was domestic in his habits and highly enjoyed the home circle.

Eugene Shaw, the only surviving son, was born in Industry, Me., December 7, 1850, and was but six years old when he went with his parents to Eau Claire. There he has remained ever since. In addition to a common school education he attended the seminary at Eau Claire, and after a short time spent in the company's store, attended one year at Bryant & Stratton business college in Chicago. Following this he became a manager in the store, which does an annual business of $125,000. Not being satisfied with this line of work he gave it up, and during the summer months, between 1871 and 1878, spent his time steamboating and selling lumber at the towns of the Mississippi river. Since the Daniel Shaw Lumber Co. has been incorporated he has been general manager, and has won a name for business acumen and ability the equal of any among the lumbermen of the northwest. This concern has an annual output of 25,000,000 or 30,000,000 feet of finished lumber. In 1882 Mr. Shaw married Miss Lottie Kennedy, daughter of Donald Kennedy, who is now a resident of Minneapolis, Minn. Mr. Shaw is a member of the K. of P., and in politics is most independent. He is a thorough-going and successful business man, and is well liked by all with whom he comes in contact. A more extended history of the origin and development of the Daniel Shaw Lumber company will be found in the chapter devoted to the Chippewa valley.

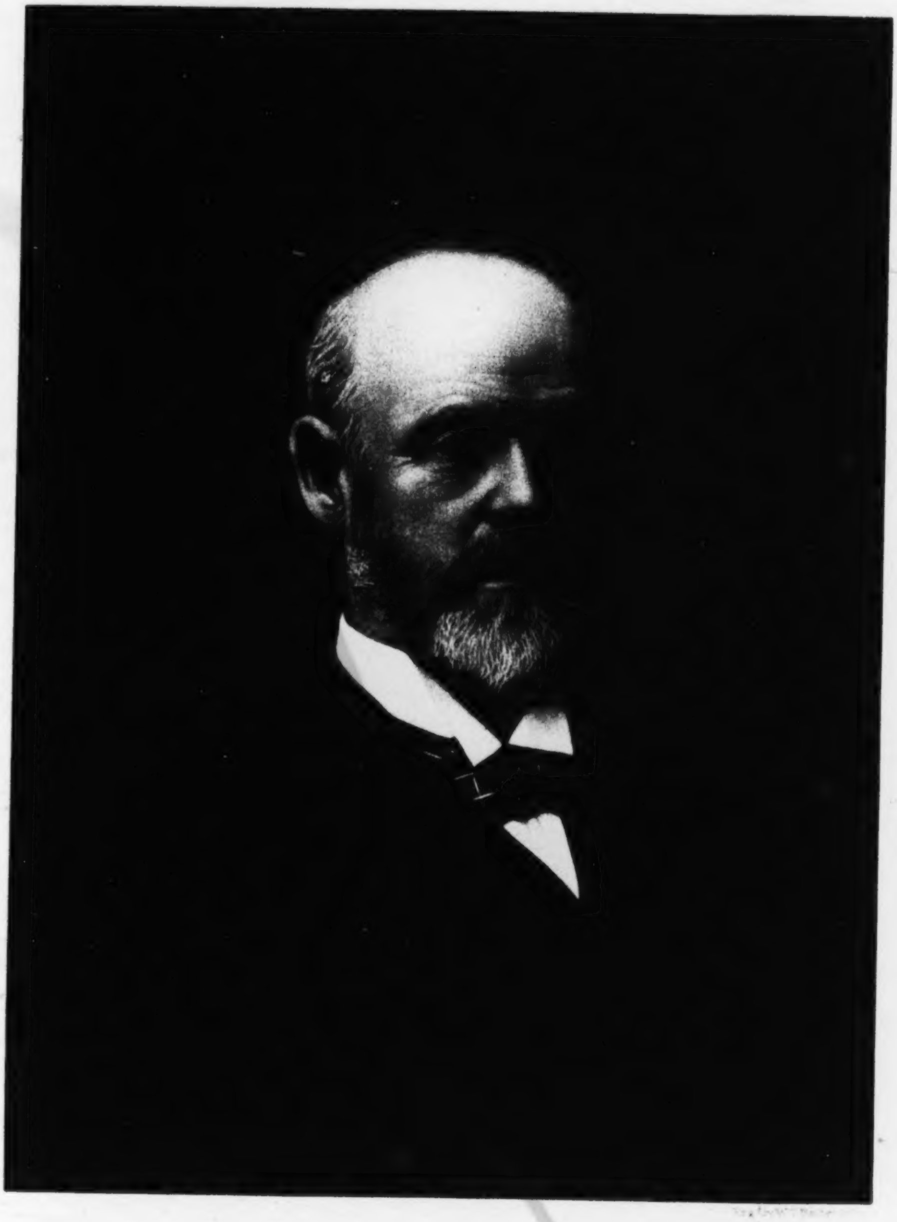
Charles Augustus Bullen, president of the Daniel Shaw Lumber Company of Eau Claire, was born at the town of New Sharon, Franklin county, Maine, October 8, 1825. He was the eldest son of Joshua and Clarissa (Hoyt) Bullen, whose families were among the earlier settlers of New Sharon. Mr. Bullen was a farmer, and his son was given the opportunities of a common school education in connection with farm work, this being supplemented by a course of study at the high schools of New Sharon, Industry and New Vineyard, until he reached the age of twenty years. At about the age of fifteen years the boy read with avidity the narration of the explorations of Lewis & Clark, and became deeply interested in the history of the far west, then a comparatively unknown land, and resolved when opportunity should offer to see the country for himself. In May, 1849, he started west and spent the summer in working upon a farm in Western New York, and in the fall continued on to Chicago, and after a couple of months of traveling about northern Illinois, went to the southern part of the state, and finally engaged in school teaching about twenty miles east of St. Louis. There was at this time no railroad out of Chicago except fifteen miles of the Chicago & Galena road, and his journeying was by stage and on foot. But his face was turned westward, and in the spring of 1850 he took passage, in company with his brother Addison, who had joined him, upon a steamboat on the Missouri river, bound for St. Joseph, then the western limit of civilization and the starting-point for crossing the plains. Here they remained for a month, and on May 11, having secured an outfit of provisions and two mules, the young men started for California in company with a party of gold seekers. After a pleasant and interesting journey they reached "Hangtown" (now Placerville) on August 13, where they spent the winter with fair success, taking the precaution to send the first $300 of their earnings to their parents, as a fund for insuring the means for returning home. Remaining on the American and Feather rivers for a year and a half, meeting with fair success in mining operations, they in February, 1852, returned to Maine. In 1854 Mr. Bullen was married to Miss Adelaine Shaw of Industry, Maine, and at once took his bride to the west, and took up some land near St. Paul which he farmed for a couple of years, and becoming interested with his brother-in-law Daniel Shaw, and Constant Cook in lumbering operations, he fitted up a three-yoke team of oxen and located a camp on the Chippewa at the mouth of the Flambeau river in Chippewa county, Wisconsin, and became an active member of the Daniel Shaw Lumber Company of Eau Claire, with which he has since been connected and is now president, although in his advancing years shifting the active management of their vast business upon the shoulders of younger men. Of the history of the Daniel Shaw Lumber Company, so much is said in another portion of this work as to preclude the necessity for repetition in this connection, beyond the statement that from his earliest connection with the company Mr. Bullen has taken an active and prominent interest in its affairs, and has been recognized as a leading and influential citizen of Eau Claire. His lumber interests, however, have not been limited to Wisconsin, but have extended to Ashton, South Dakotah, Winfield, Udall and other points in Kansas, and Trinidad, Colorado. An old-line Whig in politics, he at an early day became connected with the Republican party, to which he has since adhered, and while not a seeker after office, was a member of the first city council of Eau Claire, and assisted in laying the solid foundations of that city's prosperity, which is in no small degree due to his wise counsels.

He is most decided in his views upon the temperance question, a member of the Temple of Honor, and has done much in forwarding the progress of the temperance cause in the community. He is an active member of the Congregational church, in which he holds the honorable office of deacon, and for the advancement of which he has been an earnest and consistent worker.

Mrs. Adelaine Shaw Bullen, his wife (sister of Daniel Shaw), died in 1863, six children having been born to them, two of whom are deceased. In 1865 Mr. Bullen was married to Miss Eliza Howes of New Sharon, Maine, one son and one daughter being born to them, of whom the daughter survives.

Mrs. Bullen was called to her rest in 1895, and in March, 1897, Mr. Bullen was married to Miss Martha D. Howes formerly of New Sharon, latterly of Eau Claire. After a long and eventful life in which Mr. Bullen has gained the confidence and esteem of all who have ever come in contact with him in business or social relations, he still takes a deep interest in the business of the company with which he has for so long time been connected, and passes the evening of a useful life, with unimpaired intellect, in the full enjoyment of the affection of a community in which he has been so important a factor from its earliest history.

Orrin H. Ingram.—This gentleman is possessed of that independent spirit, that enterprise, push and energy necessary for a successful business career, and his life has been a useful and prosperous one. Like many of the representative citizens of Wisconsin Mr. Ingram is a native of Massachusetts, born in Westfield, May 12, 1830. His parents, David A. and Fanny (Granger) Ingram, moved to Old Saratoga, New York, when Orrin was but a child, and there the father died in 1841, leaving very little means for the support of his family. At the youthful age of eleven, Orrin was obliged to begin the battle of life for himself. For a number of years he worked on a farm for his board and clothes, and when seventeen years of age went to Lake George where his mother, who had married again, then lived. There he again worked on a farm, but attended school during the winter months, until twenty years old, when he went to Massachusetts. While there he made application for a position in the United States armory at Springfield, and three years later received word that the place was open for him. He had changed his mind, however, for in 1847 he had returned to New York and entered the employ of Harris & Bronson, lumber dealers, in the vicinity of Lake Pharaoh, Warren county. In the winter he received $12 per month and in the summer, when he worked in the mill, he received $13 per month. Later he assumed entire charge of the mill. Some time after this he assisted in building a mill for Fox & Anglin on the Rideau canal in Canada, and about the same time he also built and operated mills on the Moira river near Belleville, Canada. Returning to his former employers, Harris and Bronson, he built and operated a mill for them at Ottawa, Canada, and won such an enviable reputation as a lumberman that he was offered many excellent positions. The firm of Gilmour & Co. of Ottawa, Canada, the largest lumber concern in the world, offered him a position at $4,000 a year, house rent, horses, etc., furnished. He accepted, and remodeled several of their large mills at various points, and had entire charge of their manufacturing work from the logs to the finished lumber. While with this company he invented the gang edger, a device that has been of greater advantage to the lumber business than any other contrivance ever introduced. He did not patent his invention, but put it to practical use in various mills which he superintended, and also in many Wisconsin mills, etc. Some time later a man named Paul applied for a patent on the edger, which was granted to his heirs later, but as it was proved that it had been invented and introduced into several mills by Mr. Ingram, Paul or his heirs did not collect royalty. Having accumulated considerable means, Mr. Ingram in 1856, decided to go in business on his own account. Gilmour & Co. offered him $6,000 per year to remain with them, but he refused the offer, and in 1857 founded the firm of Dole, Ingram & Kennedy. This firm began lumbering in the Chippewa valley, and soon after began rafting, and still later opened a yard at Wabasha, Minn., also one at Dubuque, Iowa, where they built a mill soon after. In 1861 the mill at Eau Claire was burned at a total loss of $50,000, there being no insurance. In 1862 Mr. Dole retired, but two years later two of the employes were given a one-eighth interest to be paid out of their share of the profits. The firm then became Ingram, Kennedy & Co. In 1865 this firm built the steamer "Silas Wright" and conducted the largest part of the freighting from Reed's Landing to Eau Claire. Mr. Ingram's inventive genius again prompted him, and he produced a system of lighters which enabled their boat to ascend the river while other boats of less draft had to remain down stream. This he had patented. In 1867 or 1868 the boat was taken south and operated on the Arkansas river but later was purchased by H. T. Rumsey of La Crosse who put on a line of boats. In 1880 Mr. Ingram organized the Charles Horton Lumber Co. of Winona, and the next year Mr. Kennedy sold his interest in all their enterprises to Messrs. Dulaney & McVeigh, and the Empire Lumber Company was established with a capital of $800,000 absorbing the interest of Ingram, Kennedy & Co., including Ingram, Kennedy & Day of Dubuque, and the Dubuque business was then incorporated as the Standard Lumber Co. with $500,000 capital. Mr. Ingram is president of the Empire Lumber Co., vice-president of the Standard Lumber Co. and president of the Wabasha Lumber Co. In 1883 he organized the Rice Lake Lumber Co. with $600,000 capital and has since been its president. He is also vice-president of the Chippewa Lumber & Boom Co., a large lumber concern with a capital of over $1,000,000; president of the Eau Claire National Bank, a director in the Hudson Saw Mill Co., president of the Eau Claire Water Works Co. which has a



D R Moore

capital of $100,000, and holds official positions in other extensive enterprises. He erected one of the finest office buildings in Wisconsin at Eau Claire, and in this is the free public library donated by him to the city. Mr. Ingram also owns a fine farm near Eau Claire on which he spends much of his spare time looking after his fine stock, etc. He is president of the Ft. Scott Lumber Co. of Ft. Scott, Kansas, and is treasurer of Anthracite Coal Co. of the district of Alberta, Canada, which has a capital stock of $1,000,000. Aside from his many business cares Mr. Ingram is interested in all good work and devotes much of his time to religious and educational matters. He is a member of the Board of Trustees of the State Committee of the Congregational church, a member of the Y. M. C. A., and is a director of Ripon College. Mr. Ingram was married in 1851 to Miss Cornelia E. Pierce of Lake George, N. Y. He has a cottage on Long Lake, Wis., and during the summer spends much of his time on the lake in his yacht. Although Mr. Ingram can now enjoy all the comforts of life, he merits it all, for many years of his life were spent in labor and toil, and his days of prosperity and comparative ease find their highest satisfaction in seeking the good of those less favored with life's comforts, and in promoting the interests of the city in which he ranks as one of its most honored citizens.

D. R. Moon.—It is unnecessary to speak in words of exaggerated praise of business men who, on account of their long tenure and extensive operations, comprise in their individual history almost a history of the business in which they are engaged. Their very existence is emphatic evidence of the honorable position that they occupy, and the long course of just dealing that they have pursued. Among such men is Mr. D. R. Moon, whose career of usefulness and uprightness has won the approval and confidence of all. He is a product of the Empire State, born in Chenango county, August 29, 1835. He was left fatherless at an early age, and when but eight years old went with his widowed mother to Kendall county, Illinois, where they resided until 1845. The family then moved to Aurora of that state, where young Moon grew to manhood. At the age of nineteen he entered Hall Brothers' Bank as bookkeeper, and was thus engaged until 1857; when he was sent by them to take charge of a bank at Eau Claire, Wis. In 1861, the bank, whose securities were Missouri State bonds, was closed by the comptroller of state, and for six years after this Mr. Moon was engaged in buying and selling timber lands, logs, lumber and general merchandise. Industrious and persevering, he did not hesitate at any honorable employment, and in this manner accumulated some means, and in 1867 formed a partnership with Gilbert E. Porter, a manufacturer of lumber. They began business at Porter's Mills, four and a half miles down the river from Eau Claire, and rafted their product down the Mississippi.

Mr. Moon had the happy faculty of inspiring those with whom he was associated with the spirit of success, and as a result all of their ventures prospered. In the fall of 1869 the firm started a wholesale yard at Hannibal, Mo., all products of their saw mills on the Chippewa river being distributed from this point until 1882, at which time railroad communication was had at Porter's Mills, and the firm commenced piling a part of their product at that point for shipment by rail. In 1870 this concern was consolidated with that of S. T. McKnight at Hannibal, under the firm name of S. T. McKnight & Co., but the business of manufacturing was conducted at Eau Claire under the title of Porter, Moon & Co. Mr. Moon has been the financial manager of the concern from its inception. In 1873, the two firms merged into the Northwest Lumber Company of Eau Claire, with Mr. Porter as president, Mr. Moon vice-president, and Mr. McKnight secretary and treasurer. Later, Mr. Moon was elected president, and has had the general management of the Company's affairs until the present time. From a beginning with 78 men employed, and a yearly pay roll of $26,676, their business has increased to such an extent that 1,282 are now employed, with a pay roll of $375,878.16. The capacity of the mill at first, or in 1867, was 4,957,800 feet. In 1877 it was 6,955,970 feet and in 1887 41,217,930 feet, while the present year the Company has manufactured 108,066,110 feet of lumber. The North Western Lumber Company own five-eighths stock in Montreal River Lumber Co. Mr. Moon is president of the Montreal River Lumber Co., and vice-president of the Shell Lake Lumber Co., and is interested in various other lumber concerns. Fitted by nature to direct large operations, he takes a prominent place among the foremost lumbermen of the state. In politics he is a Republican, but has never aspired to public positions. On the 12th of October, 1858, he married Miss Sallie Gilman of Harrison, Licking county, Ohio. To them have been born seven children: Lawrence G. (manager at Stanley mills), Frank H., (lumber dealer in Vancouver), B. C. Angeline; Sumner G., (for a time of the Sterling Lumber Co. and now completing his last year at Yale College), Chester D., Pauline and Delos R., Jr. Mrs. Moon is an active church worker, and takes a laudable interest in all charitable enterprises.

An extended history of the North Western Lumber Company from its first organization will be found in our general history of the Chippewa valley, to which the reader is referred for greater enlargement of the career of Mr. Moon.

Sumner Thomas McKnight was born at Truxton, Courtland county, New York, in 1836. His father, who was a merchant, came from an old colonial family who were among the early settlers of New Jersey. The original name was McNaughton, and is of Scotch origin. The subject of this sketch was educated in the schools of the town of Truxton, and commenced his commercial career at the age of 16, when he became a clerk in a general store at Ripon, Wis. Two years later he was given a position as clerk in a store belonging to George N. Lyman, at Wausau, Wisconsin. This store was carried on in connection with the lumbering business which Mr. Lyman conducted at that point. Within two years from the time he was given this position, he became the general manager of the mills and logging operations, together with the store belonging to Mr. Lyman at Wausau. He remained in this position until the mills and business were disposed of. During this period he acquired his first technical knowledge of the lumber business, with which he has ever since been connected. In 1859 he removed to Blue Earth City, Minnesota, where he carrried on a general store until 1862, when he removed to Hannibal, Missouri, and re-engaged in the lumber business with J. B. Price, doing a wholesale and retail business. This partnership was continued for six years, and led to Mr. McKnight becoming associated in 1870 with Porter, Moon & Co., of Eau Claire, who were manufacturers of lumber at that point. The distribution of the product of the mills of the firm named was continued at Hannibal, under the name of S. T. McKnight & Co. The business career of Mr. McKnight has since been intimately connected with this firm and its successor, the North Western Lumber Co., under which name the business was incorporated in 1873. Mr. McKnight was made secretary and treasurer of the Company, and has held that position until the present time. His business career has been so intimately connected with the history of the North Western Lumber Co., that it is almost impossible to sketch that career without reference to the growth of this corporation. When the business which had been conducted by Porter, Moon & Co., was incorporated under its present name, it had a mill equipped with one circular and one gang, with a daily manufacturing capacity of 60,000 feet. This was soon after increased, by the addition of a second circular, and later a second gang was added to increase the capacity to 160,000 feet daily. In 1880 the company erected a second mill containing one circular and a complement of shingle machinery, giving it a capacity of 50,000 feet of lumber and 150,000 shingles. These mills were located at Porter's Mills about four miles south of Eau Claire, on the Chippewa river. In 1886 the company purchased the mill and a block of timber at Sterling, Wisconsin, and operated it until 1892 when the timber supply tributary to it was exhausted. About 1883 Mr. McKnight was among the number to organize the Barronette Lumber Company, and the Shell Lake Lumber Company, which built and operated mills at Barronette and Shell Lake, Wisconsin.

In 1890 the Northwestern Lumber Company purchased a controlling interest in the Montreal River Lumber Company at Gile, Wis., and in 1892 the company purchased the extensive plant of the Eau Claire Lumber Company at Eau Claire, consisting of two mills and a large amount of timber lands, together with considerable city property. These mills are fully described in the general history of the Chippewa valley. During the same year the North Western Lumber Company erected at Stanley, in Chippewa county, a saw mill containing two bands and a gang, with a cutting capacity of 150,000 feet in ten hours. For the past five years Mr. McKnight has been one of the vice-presidents of the Mississippi Valley Lumberman's Association and one of its most active directors. In the fall of 1896, when the lumbermen from all sections of the United States gathered at Cincinnati and effected an organization to conserve the interests of the lumber industry in the matter of tariff legislation, Mr. McKnight was chosen one of a committee of twenty-two, to present those interests to the Congressional committee at Washington.

Mr. McKnight was married in 1868 to Miss Eugenie Manville of Ripon, Wis., and to this union were born four children of whom one is deceased, and two daughters, Harriet E. and Caroline E. (wife of George C. Christian, a prominent flouring mill operator of Minneapolis) and a son, Sumner T. McKnight, Jr. survive. Mr. McKnight is a staunch Republican in politics, but has never courted political honors. Active in his business relations, he has been connected with several banking institutions in the capacity of director, and is held in high esteem as a business man.

James Tilly Barber.—Some men snatch success from the very jaws of failure, some are alternately prosperous and unfortunate, while a few are so evenly balanced that their lives appear to be utterly free from friction. Their course is steadily onward and there appears to be no backward step. Thus it has been with Mr. James Tilly Barber. The progenitor of this family in America was John Barber, who was a native of England, and who came to this country when a young man. He settled in Berkshire county, Mass., followed farming there for many years, but subsequently moved to Ashfield, Franklin county, of that state, and there died at a good old age. He was the father of five daughters and two sons. One son, William H. Barber, was born at Savoy, Berkshire county, Mass., in 1808, and died when fifty-six years old. He was a man of much more than average ability, an inventive genius and an excellent machinist. He married Miss Caroline, daughter of Stephen Hayward and of an old pioneer family of revolutionary fame, one of its members being with Paul Revere's minute men. James T. Barber, son of William H. and Caroline Barber, was also a native of the Old Bay State, born at Ashfield, January 25, 1847. He received his primary education in the common schools but subsequently finished at Windsor, Vermont, where his father was manufacturing muskets for the army during the civil war. At an early age he found employment on The Springfield Republican, which paper was ably edited by Samuel Bowles and J. G. Holland. He filled several positions on the paper and for some time had charge of the mailing department. In the year 1870 he turned his face toward the setting sun, located at Hannibal, Mo., and was bookkeeper there for two years and a half. Following this he served in the same capacity for Davis, Bockee & Garth, lumbermen, for two years. In the month of July, 1875, he was offered a position with the Northwestern Lumber Co. and his efficiency soon attracted the attention of his employers. He was taken into the company and later became vice-president of this big enterprise. During 1886 he went to Eau Claire and took a prominent position as man of affairs. In that city he has made his home since and is one of its best citizens. He is secretary of the Montreal River Lumber Co., president of the Sterling Lumber Co. and vice-president of the Northwestern Lumber Co. He was married

January 22, 1889, to Miss Petronilla Bellinger, who although born in Hamilton, Ontario, is descended directly from the old Dutch settlers of New York state. Mr. Barber is a Republican in his political views, is an active worker for his party, and is a recognized authority on political questions of national importance. He was a member of the convention that nominated James G. Blaine, and since residing in Eau Claire has been a member of the State central committee.

William Aloney Rust.—It is a noticeable fact that a large proportion of the earlier lumbermen who have developed the industry in the western states, were eastern men, and a no less noticeable fact that their children have adopted the calling of their fathers.

In the chapters devoted to the St. Clair and Saginaw regions, frequent mention is made of the Rust family, the members of which were prominent in the lumber trade of those sections. The Rust family was from Vermont, where Aloney Rust, father of the subject of this sketch, was born at the town of Wells, Rutland county, in 1818. In 1837 Aloney's parents came west, settling at Newport (now Marine City) on the St. Clair river, Michigan, and Aloney adopted the life of a sailor on the lakes, attaining considerable skill and proficiency as a navigator. In 1843 in company with his brother David W. Rust, he built the schooner Vermont of which he took command for several years. In 1846 he purchased a steam saw mill at Newport and operated it until 1859. Appreciating the growing importance of the lumber industry of the State, he began in 1851 to investigate and locate lands upon the tributaries of the Saginaw river, and in 1857 in connection with his brother David W. took an active interest in the business of the valley, erecting a steam saw mill at the upper end of the river (now within the limits of the consolidated city of Saginaw), which with repeated remodelings and additions of modern devices, he continued to operate until his death September 18, 1874, having in the interim erected a large mill at Bay City. He was also largely engaged in the manufacture of salt, was part owner of several steam and sailing vessels, and in an extensive lumber yard at Cleveland, Ohio, and owned large tracts of pine and mineral lands in Michigan and Wisconsin. During the last ten years of his life, he carried on large operations on the west side of the State, in connection with his brother David W. together with James Sanborn and others, and at his death had amassed a comfortable fortune.

From this stock sprang William Aloney Rust, who was born at Newport, Michigan, May 3, 1844. While receiving a common school education his youthful life was permeated with influences emanating from the atmosphere of the lumber business.

At 17 years of age he went to Bay City entering the employ of a company in which his father was interested, and after an apprenticeship of one year in the saw mill, he was given the management of the business at that point. In winter he had charge of the logging camps, taking part in each branch of the labor, studying the business in all its details from the stump to its manufacture and sale of product. At the age of 22 he became a land looker upon his own account, locating tracts of good pine land in Michigan, Wisconsin and Minnesota in behalf of companies in which his father was interested, receiving an interest in them as compensation for his labor.

In the fall of 1871 he became a permanent resident of Eau Claire, Wisconsin, where he speedily became identified with several of the leading lumber concerns, largely extending his holdings of pine lands on the Chippewa river and tributaries, in connection with other business interests with which he became identified. In 1872 he was one of the organizers of the Bank of Eau Claire, becoming its first cashier and later its president. In the fall of 1872 he was associated with others in the purchase of the mill property of the Badger State Lumber Co., of which he became secretary and later, vice-president. In 1875 he became a heavy stockholder, secretary and general manager of the Eau Claire Lumber Co., taking active charge of the affairs of the company, until its liquidation through sale to Frederick Weyerhaeuser and others in 1887. During the entire period of his residence in Eau Claire, Mr. Rust has been closely identified with many of its larger business interests as well as of interests at other points in the State, among which may be mentioned the Rust Owen Lumber Company; Westville Lumber Company; Chippewa Lumber Company; Brennan Lumber Company of Hinckley, Minnesota; West Superior Lumber Company of West Superior; Eau Claire & St. Louis Lumber Company; Canadian Pacific Coal Company of Anthracite, British Columbia; Bow River Lumber Company of Banff, British Columbia; and many local business concerns at Eau Claire.

His early education in forest and lumbering conditions, his intimate knowledge of human nature, and his wide acquaintance with the requirements of the State in its general interests all combined to point him out as one well qualified to represent the people in their legislative halls, and in 1886 he was elected to the state senate, where he served his constituency for two terms. He was elected mayor of the city of Eau Claire on the people's ticket, meeting little or no opposition. He was offered the nomination to congress, and other political preferments, but declined, his tastes not running in that direction, while his multifarious business interests absorbed his attention. It is by such men of broad perception and indomitable energy, that the development of the great northwest has been accomplished during the past half-century.

Mr. Rust was married August 30, 1871, to Miss Dora, daughter of Capt. Frank Drummond, a well-known steamboat pioneer of the Wolf river, Wisconsin. They have two sons and one daughter: Frank Lee, Paul D. and Louise.

CHAPTER XXXIII.—LA CROSSE COUNTY.

ITS EARLY HISTORY.—FIRST MILLS, AND LATER DEVELOPMENT.

THE first lumbering of which we find trace in La Crosse county, Wisconsin, was the rafting in 1844 by Myrick & Miller of a lot of logs got out on Black river and sent down the Mississippi to St. Louis. The Mormons had about two years previous made some timber on the river for their buildings at Nauvoo, as mentioned in connection with Black River Falls, but to Myrick & Miller no doubt belongs the credit of the first commercial venture from La Crosse, and this firm continued to operate until 1847, when a heavy flood, costing the firm a loss of more than $20,000, in booms, logs and lumber, led to a dissolution of their connection. A letter from Mr. Myrick to a local publication some years ago is interesting at this point.

"In 1842 or 1843 quite a colony of Mormons came up from Nauvoo in charge of Miller & Wight, who rented Spaulding's mill at Black River Falls to get out lumber for the building of their temple at Nauvoo. They got out of provisions and goods and we furnished them with what they wanted during the winter and took our pay in sawed lumber to be delivered at La Crosse in the spring. (1844.) The lumber was delivered according to agreement and rafted, and Jacob Spaulding having got out a raft of lumber at the same time, we coupled the rafts together and ran them to St. Louis. This was the first raft run out of Black river to St. Louis. Jacob Spaulding went to Black River Falls in 1839 and built a saw mill in partnership with Andrew Wood of Quincy, Illinois. When O. H. Dibble returned from Black river in 1845 he reported to me that he had found a good site for a saw mill on the west fork of the Black, and persuaded me to go in partnership with him to put up a mill. I went to St. Louis and purchased the necessary iron and machinery and with Dibble went up with men and supplies and erected the mill which we had running in the summer of 1846, it being a double sash mill. In the spring (1846), finding the work progressing slowly and unsatisfactorily, Dibble drew out. I paid him for his services to that time and he left the country. Two or three months later I had the mill completed and commenced to saw. The river was too low for rafting that season and we did not turn out any lumber. In the spring of 1847 I rafted 300,000 feet which lay tied up on low water, until a cloud-burst in June swept everything in a heap down the river. It took six weeks to pick out our lumber and logs, and when the task was completed Myrick & Miller had three Mississippi log rafts and Spaulding had seven. Spaulding went to St. Louis and got a hundred men to come up and run the rafts down the river; when he returned the water was very low; there was no cash market for logs so I sold those which I had above the rapids to Spaulding, and entered into a partnership agreement with him to rebuild the mill at Black River Falls, turning in the log rafts and my cattle and horse teams as a partial payment. Spaulding started down the river with his ten log rafts, stranding repeatedly on sand bars. In the latter part of October he returned with his rafting tools and a foreman, together with twenty barrels of provisions, upon all of which I had to pay the freight and the passage money. This was all he had towards going on to rebuild the mill and stock it, as he had had bad luck in getting the rafts down the river, had been sick, and entrusted his business to others with disastrous results. It looked as if he was 'broke' and I knew that I was not far from it, and thinking two broken concerns could hardly make a success of it, I asked him what he would take to annul the contract, and upon his offer of $250, I credited that amount upon his indebtedness for logs, and took his note for the balance. Spaulding had pluck, however, and erected a mill on the site of the old one but on a much more extensive scale, and got in a stock of logs that winter. I sold our mill and plant to W. K. Levis and retired from the lumber business. The saw mills on Black river were owned and were situated as follows: William and Theodore Douglas had a mill about twenty-five or thirty miles up the river on the west bank; next was Jonathan Nichols on Nichols Creek; Shepherd & Valentine were three miles below the falls. Just above on the other side was James O'Neil, then Jacob Spaulding at Black River falls; next above was John Levis mill on Levis creek; Thomas and Peter Hall on Hall's creek; John Morrison on Morrison's creek; then Myrick & Miller on West fork, and J. McCollins and James O'Neil on Cunningham and O'Neil's creeks."

Mr. Myrick had visited this locality as a trader before 1841, in which year he made permanent settlement, and was indeed the father of the now prosperous city of La Crosse, which is situated at the mouth of Black and La Crosse rivers, which with their branches penetrate some of the richest and most extensive forests of the State.

In 1852 George Farnham established a lumber yard at La Crosse, obtaining the principal portion of his stock from the mills which had been built on the Chippewa, the lumber reaching him in rafts, his first raft from that stream containing 200,000 feet, purchased from one Gilbert, of whose operations we find no note. During the winter of 1852 Mr. Farnham and Samuel Weston engaged in logging on Black river, Farnham putting in 2,000,000 feet which supplied a mill built during that winter by Nichols & Tompkins at Onalaska, the 3,000,000 feet got out by Weston going to other mills down the river, and a mutual organization was formed by all parties in interest for the subsequent handling of such logs as should be run out of the stream, and this was continued until the fall of 1863 when the Black River Improvement Company was formed, perfecting its organization January 6th, 1864, by the election of W. T. Price of Black River Falls as president, D. J. Spaulding of Black River Falls as secretary, and John McMillan of La Crosse as treasurer. This company incorporated under the state law, March 1st, 1864, and has been in continuous operation ever since, its present officers being John Paul, president and Forest J. Smith, secretary and treasurer. When the company organized January 6th, 1864, its action was informal and preliminary, but upon its incorporation in March, it became a stock company, stock to the extent of $10,000 being taken by the several loggers. The new company purchased all the improvements and rights of the former operators on the river and commenced business under the name of the Black River Improvement Company, electing Mr. Price as president and S. L. Nevins secretary and treasurer; Mr. Nevins held this office until the fall of 1893 when he retired on account of age and ill health, having reached nearly four-score years. He was connected with these companies for over thirty years, during which time the capital stock had been increased from time to time until it reached $90,000, at which it now stands. From time to time during this period there have been several driving companies formed to facilitate the driving of logs on the river, and at present an organization known as the Black River Log Driving Association, exists; a mutual corporation without capital, in which none but actual loggers are interested, and have control of that branch of the business. It is operated upon the assessment plan, balances being pro-rated at the close of the season to the owners of logs. Of this company C. L. Colman is president and F. J. Smith secretary and treasurer. The work of the boom was naturally restricted for many of the earlier years, the volume of trade not demanding a large output of logs, and the records of its work are not voluminous, but for such as are available we are indebted to the courtesy of Secretary Smith, who has for many years been connected with the office as assistant secretary and since 1893 as secretary.

Fair estimates of the work of the earlier years place the quantity of logs handled at but 12,000,000 feet in 1853; 3,000,000 feet in 1854, and the same in 1855, jumping to 35,000,000 in 1856, the immediately succeeding years showing 30, 20, 15, 12, 10, 12 and 15,000,000 feet respectively, until 1864 when but 6,000,000 feet are recorded. From this date, however, the business rapidly increased, and the official records place the handling in 1865 at 46,555,770 feet; 1866 at 47,924,060 feet; 1867 at 88,632,390 feet; 1868 at 57,395,560 feet. The business struck a boom in 1869 making a record of 160,573,890 feet, with 1870 showing 170,920,870 feet, reaching 197,103,820 feet in 1876, falling to 86,434,260 feet in 1877, rising steadily to 210,902,500 feet in 1880, and 250,609,720 feet in 1881, figures not again reached in the history of the operation of the boom, 207,399,470 feet in 1890 being the nearest approach, from which point the figures in gross of succeeding years being respectively 160, 90, 100, and 101,000,000 feet until the operations of 1896 show but 85,773,680 feet handled, and the operations of the season of 1897 are estimated at but 72,000,000 feet.

So near as can be ascertained from the records, the work of the boom from 1853 to 1897 may be set down at 4,918,803,770 feet log measure, but as the scale was simply for the purpose of approximating the proportion which each owner of logs should pay for the maintenance of the work, it is safe to add twenty-five per cent to the figures in order to ascertain the quantities in sawed lumber, and this gives a gross production of 6,148,504,712 feet as the cut of the La Crosse mills from Black river stock. In support of this theory we select at random the mill report for 1873, which shows an actual cut of 240,698,000 feet of lumber, and 127,955,500 shingles, equaling 256,692,472 feet (in the total, reducing shingles to lumber), while the boom report for that year shows but 195,398,830 feet of logs turned out. Per contra, the reported lumber cut of 1895 and of 1896 more than doubles the boom scale, and is accounted for by the receipt of logs from the Chippewa river, it being already necessary to thus supplement the fast waning supplies to be obtained from Black river.

It is estimated that there is not to exceed 200,000,000 feet of timber left on Black river to supply the future wants of the mills at La Crosse, and this it is expected will be practically all put in within the next two years. It is safe to say that there will be no logs run out of the river after the year 1900 and it is highly probable that even with supplementary supplies, not more than one or two mills, if any, will be running after that date at La Crosse, although rough gleanings will no doubt give work to small mills on the river for several years later.

The first mill at La Crosse was a mulay mill with siding mill for resawing cants, and was built by Timothy Burns, F. M. Rublee, John S. Simonton and S. T. Smith (father of Forest Smith, secretary of the Boom Co.), and was known as the La Crosse Lumber Company's mill. Its capacity was large for that period, being rated at 15,000 feet per day, the product finding market almost exclusively in La Crosse and its rapidly settling vicinity. This mill was started in the fall of 1852; its cut in 1853 was about 30,000 feet per day. Connected with it was a grist mill, both mills being operated until 1857 when they were burned, involving a loss of $30,000.

In the spring of 1854 Peter Cameron began the erection of a saw mill which he was unable to complete, and which in 1855 went into the hands of Goldthwaite & Brown, who put in machinery and manufactured about 5,000 feet daily, which found ready sale at $27 per thousand feet. This was a sash mill, and was run but a few years until the firm discontinued business, the property being purchased in 1866 by C. L. Colman, who was from 1856 engaged in the manufacture of shingles, using a horse-power, the shingle blocks being first steamed and then sliced with a knife in a machine fitted to this work; but of this hereafter.

About this time (1856) parties from Cincinnati, Ohio, with a man named Whitney as superintendent, erected a mill containing four small engines. This mill was located on the point of a slough and was known as "The Ohio Mill," and consisted of one mulay, one rotary, and a small gang, each having its separate engine, the balance of the machinery such as lath mill, edger and cut off saw being run by a separate engine. This mill was rated at 40,000 feet per day. The operation did not prove financially successful and the management proving unsatisfactory to the stockholders, William J. Young, later one of the most prominent lumbermen of the Mississippi valley, whose mammoth operations at Clinton, Iowa, are elsewhere mentioned, and who at that time was general freight agent of the Cincinnati, Hamilton, Dayton & Chicago Railroad, was sent to examine into matters, and reporting that in his estimation the location was undesirable, on his advice, the machinery was removed, after strenuous objections on the part of Mr. Whitney, in May, 1859, and is understood to have formed the nucleus of the immense establishment for many years operated by Mr. Young at Clinton.

In 1856 Sherman & Griswold erected a saw mill of 20,000 feet daily capacity, on the flats below the city. In 1857 Denton & Hurd built a mill of 20,000 feet capacity, with which Jacob Spaulding soon after became connected; business proving unprofitable the firm broke up in 1858, C. L. Colman in 1866 purchasing the machinery, which for many years had remained idle. A mill was erected in what is now the 5th ward (North La Crosse) in the spring of 1856, by R. E. Gillette, which with about 10,000 feet per day capacity, was operated for about four years, when it was removed to Tomah, which as the proposed junction of three railroads, gave promise of a retail trade with a fast populating district.

In the same neighborhood, Crosby, Hanscomb, Hixon & Co. in the spring of 1856, built a mill of 12,000 feet capacity, the product of which was rafted to down river points; this mill was burned in 1863. Shepherd & Valentine also built a mill in 1856 with capacity for cutting 15,000 feet per day, and in April of the same year Sill, Loomis & Root started a new mill of 15,000 feet capacity. Wages in the mills at this time ranged from $1 to $1.50 per day, engineers and sawyers receiving from $1.50 to $2.

In 1857 Butrick Brothers built a mill containing two rotaries which cut from 20,000 to 25,000 feet daily, which was considered good work even for circular saws which were but now being introduced. This mill was destroyed by fire in 1858.

As before noted, Charles L. Colman in 1854 made cut shingles by horse-power. Mr. Colman had for some years been a resident of Fond du Lac, where in connection with a man named Noble he was for a couple of years engaged in the manufacture of cut shingles from steamed blocks, but believing that the western part of the State presented better facilities and market for their manufacture, they loaded the machinery on wagons and utilized the horses which constituted their motive power, for hauling it to their chosen location at La Crosse, where they soon after separated, Mr. Colman continuing the use of the horse-power until 1856, when it was supplanted by steam. The product of the mill at this time sold at five dollars per thousand. Having in 1862 purchased the machinery of the Denton & Hurd mill, Mr. Colman now increased his shingle manufacture to 350,000 daily, running the mill until 1868 when it was burned and was not rebuilt. In 1866 Mr. Colman purchased the Goldthwaite & Brown mill, (then owned by Peter Cameron), which he refitted to a capacity of 30,000 feet per day. Lumber at this time was selling at $27 per thousand feet, which made it judicious in 1869 to add the boilers of his old shingle mill, increasing the capacity of his saw mill to 50,000 feet daily. The mill burned in 1875 and was rebuilt with more modern appliances, including two double circulars with Prescott steam feed (which with modern double edgers and trimmers had by this time become essentials); adding two gangs of fifty-four and thirty-six inch gate, two double edgers, two trimmers and a twelve block shingle machine, the capacity of the mill being 25,000,000 feet per season, with 6,000,000 shingles. In 1886 this mill was burned, and by the opening of the following season had been replaced by a still more modern mill operating two bands, two gangs, two edgers and a modern trimmer, together with lath and shingle machinery, giving it capacity for the manufacture of 40,000,000 feet of lumber, 16,000,000 shingles and 6,000,000 lath per season.

In 1856 Royce, Boice, Melville & Co. erected a mill on Black river at Onalaska, five miles from La Crosse, capable of cutting 16,000 feet daily, its season's cut being about 2,500,000 feet, of which one-third found market at home, and the balance was rafted to Mississippi river towns. During the same year C. M. Nichols commenced building a mill at Onalaska, and in 1859 purchased the Royce, Boice, Melville & Co. mill, which with extensive repairs and alterations they continued to operate until 1865. During the intervening years the product of these mills sold at an average of $13 to $15, the average from 1865 to 1868 being about $22. In 1873 the firm of C. H. Nichols & Co., composed of C. H. and F. E. Nichols and Frank Pooler, was organized for the operation of the mills, whose capacity had been increased to 45,000 feet of lumber, 30,000 shingles and 10,000 lath per day. The mill burned in 1880 and was rebuilt the following year to a capacity of 120,000 feet daily, with machinery of the latest type. Doctor Sparks in 1858, built a mulay mill above the Nichols mill. The Nichols mills in their present advancement rank among the larger operation of the river, the cut of 1895 being reported at 20,000,000 feet of lumber, 16,000,000 shingles and 6,000,000 lath.

The site upon which Milhauser & Hirscheimer built their mill in 1856 was in 1860 purchased by John Paul who built a mill of about 12,000 feet daily capacity costing him about $2,000 when completed. It was a circular mill and ran night and day to accomplish the cut stated. As the years rolled on, the

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mill was enlarged and improved, until in 1868 it was destroyed by the bursting of its boilers. Six weeks after this calamity another mill had been placed in operation, which with passing years was enlarged and improved to a capacity of 150,000 feet per day, and has long figured among the largest operation of the northwest, with a production of 40,000,000 feet of lumber, 12,000,000 shingles and 6,000,000 lath as its yearly output. W. F. & P. S. Davidson established ship-yards and in 1857 purchased the Shepherd & Valentine mill for the manipulation of stock requisite in their business, being kept busy during the war of the rebellion in the building and repairing of river craft. In 1876 the business of the firm, which now included the sawing of lumber for the market, demanded a better mill, and a new and supposedly "modern, up to date" structure was erected, which nevertheless in 1880 gave place to a strictly modern mill with circular and gang saws, shingle and lath machinery, $30,000 being spent in its erection, the completed mill having capacity for the manufacture of 30,000,000 feet of lumber, 6,000,000 shingles and 2,500,000 lath per season.

In 1870, W. H. Polleys built a mill on French island, the capacity of which was about 5,000,000 feet per year. Mr. Polleys in 1877 sold the mill to his two sons W. E. & E. H. Polleys. Hiram Godard in 1874 built a mill on the island, containing one circular and cutting about 6,000,000 feet of lumber, 2,000,000 shingles and 500,000 lath yearly; both of these mills still continue in operation.

N. B. Holway in 1876, purchased the Robert Ross tub and pail factory which was built some years previous by Dr. McKinney and upon its destruction by fire in June, 1877, erected a modern mill with capacity for manufacturing 18,000,000 feet of lumber, 7,000,000 shingles and 3,000,000 lath per year, and with the growth of the city, found market for large quantities of the slabs which he cut into stove lengths, and with an eye to still further economy of what was generally considered a wholly useless and waste product, beyond what was required in making steam for the mill boilers, he put in screens for removing the bark and coarser offal from the saw dust, which he baled and built up a trade in its shipment to distant localities where it was in demand for horse bedding and ice packing. His mill was equipped with two circular saws operated by steam feed. Mr. Holway died in 1892, subsequent to which time the mill has been operated by his executors, having still several years' stock of pine and hemlock timber. About 1858-9 Mr. Holway built a mill at Onalaska in which was one mulay saw of 5,000 feet per day capacity; this mill was burned in 1862 and not rebuilt, Mr. Holway turning his attention to logging operations until the purchase of the Ross mill in 1876.

Hixon & Withee began work on a mill located on French island, opposite Onalaska in 1872, completing it for operation at the beginning of the following year. This mill, later known as "The Island Mill," had a cutting capacity of 12,000,000 feet per season, with 2,500,000 shingles; it was destroyed by fire in May, 1881, and at once replaced by a new mill containing a rotary and two gangs with capacity for the manufacture of 100,000 feet per day, with 75,000 shingles and 20,000 lath. The firm ran the mill until 1893, and in 1895 sold it to be removed to Arkansas. Mr. Hixon had some time previous retired from the company which for many years was known as The Island Mill Lumber Company.

The La Crosse Lumber Company, consisting of C. C. Washburne, Abner Gile, N. B. Holway, Ruel Weston, J. H. Weston and G. R. Shepherdson, was formed in 1871 and had its mill in operation in June of 1872, with one single and one double circular, and two gangs, one of thirty, and the other of forty saws, together with shingle and lath machinery, its annual cut being in the neighborhood of 20,000,000 feet of lumber, 8,000,000 shingles and 4,000,000 lath. In 1875 the stock of this mill all passed into the possession of C. C. Washburne through purchase of the other interests, and upon the death of Mr. Washburne in 1882, was operated for five years by the executors of his estate, who in 1887 sold the entire property to F. A. Copeland who still operates it under the cognomen of the La Crosse Lumber Company.

Abner Gile one of the original organizers of this company, and who was also one of the organizers of the Island Mill Lumber Company as before mentioned, died September 14th, 1897, at the ripe age of seventy-seven years. Mr. Gile was numbered among the most intelligent and public-spirited citizens of the city, and was held in universal respect.

The Sawyer & Austin Company was founded in 1872 and for many years carried on a very extensive business in logs and lumber. In 1882 they purchased the mill of R. M. Moore consisting of one circular and one gang, which had been erected in that year, and which was rated at a daily sawing capacity of about 100,000 feet per day. After its purchase by A. E. Sawyer and David Austin it was run for a couple of years in its original condition, but in 1885 was remodeled and enlarged, the rotary discarded and two bands substituted, which with the gang gave the mill a capacity for the manufacture of 200,000 feet of lumber, 100,000 shingles and 25,000 lath per day of ten hours. This mill is located at North La Crosse. Just south of the Sawyer & Austin mill is that of McDonald Brothers, erected in 1882 by B. A., C. M. and J. J. McDonald. This was originally a single circular of 50,000 feet daily capacity. In 1884 the mill was enlarged by the addition of a stock gang, increasing the cutting capacity to 100,000 feet of lumber, 100,000 shingles and 25,000 lath daily. The mill is known as that of the Gateway City Lumber Company, of which D. A. McDonald is president, C. M. McDonald, vice-president, W. A. Sutor, secretary and treasurer.

Hon. Cadwallader Coldon Washburne.—Few men have exercised a greater or more beneficent influence over the destinies of the great northwest than did the Hon. C. C. Washburne, who was for many years numbered among the most intelligent members of the lumber fraternity of Wisconsin.

Mr. Washburne was born at Livermore, Maine, April 22, 1818. His father was a farmer and general merchant in which atmosphere the son spent his earlier years, working on the farm and attending the village school until at the age of seventeen years he became the teacher of a school at Wicasset, and in 1839 having saved sufficient from his scanty earnings to take him to the now developing west, he made his way to the territory of Iowa, and selecting Davenport as a place of residence, opened a private school in the small hamlet which was then in process of settlement. After spending three months in this occupation, he was offered and accepted a position with the commission appointed to make a geological survey of the State, and a year later entered the office of Joseph B. Wells, a prominent lawyer, with a purpose to adopt that profession, and while thus engaged was in 1840 elected county surveyor of Rock Island county, Illinois, an occupation which while not interfering materially with his studies, added to his means of living. In 1852 he established himself at Mineral Point, Wisconsin, where he was admitted to practice in the United States District Court. In 1844 he formed a partnership with Hon. Cyrus Woodman who was agent for the New England Land Company, and Washburne & Woodman, with abundant capital began giving an almost exclusive attention to entering government lands, buying and selling lands, and the perfecting of titles, locating of Mexican land warrants and a general real estate business, a large proportion of which was in connection with the timber lands of Clark county. Upon the breaking out of the rebellion, Mr. Washburne went to the front, and his gallant record is a portion of the history of the nation. Previous to entering the army Mr. Washburne had taken up his residence in La Crosse, and upon his return, he entered upon an extensive lumber business, mainly upon the Chippewa river, and was engaged in this business when in 1871 he was elected governor of the state of Wisconsin, his eminent administrative talent having given him a reputation as being well fitted for this honorable mark of the confidence of his fellow citizens.

He had in fact been prominent in the affairs of state from a much earlier date, having represented his state in the congress of the United States so early as 1855, at which time he had the unique honor of being one of three brothers all of whom were sitting as representatives of different constituencies in that august body. In 1861 Mr. Washburne was a member of the committee of thirty-three members who reported an amendment to the National constitution, making slavery perpetual in the nation, but in this matter Mr. Washburne joined in the minority report, being utterly opposed to the perpetuation of the system of human bondage. It was in October of that year that he returned home and proceeded to raise the 2d Regiment Wisconsin Cavalry with which he went to the front, receiving his commission as major-general, November 29, 1862, and continuing in the service until May, 1865, when he tendered his resignation and returned home to take up the duties of business life. His fellow citizens, however, were not willing to part with the services of so useful a representative and in 1866 re-elected him to congress, continuing him in that responsible position in the election of 1868, and in 1871 placing him at the head of the affairs of the State, electing him governor by a majority of over 10,000. During the period in which he was so deeply immersed in affairs of state, Mr. Washburne at no time lost sight of his vast commercial interests, and at the time of his election to the gubernatorial office was the owner of more than 200,000,000 feet of standing pine, much of which was upon streams tributary to Black river. In 1871-2 he erected the large mill since known as that of the La Crosse Lumber Company at La Crosse which was conducted until 1880 by Mr. S. L. Nevins, who in that year was succeeded by Mr. F. A. Copeland (see sketch). The mill erected in 1871 consisted of one single and one double rotary and two gangs with capacity for cutting 20,000,000 feet of lumber and 10,000,000 shingles per season, together with a large quantity of lath. About 1890 the mill was remodeled by the substitution of a band saw in place of the double circular, and a Wickes modern gang in place of the old-fashioned one.

Governor Washburne was eminently a man of affairs, and well fitted for undertaking intelligently the conduct of vast interests, whether of state, military, or commercial. Of broad perceptions, his vision was restricted by no narrowness of view or lack of appreciative knowledge of all that was transpiring in the political, social or business world about him. He was the first to introduce into the extensive flour milling interests with which he was connected at Minneapolis, the Hungarian system known as the roller process, and when the mills were destroyed by fire in 1878 he proceeded to rebuild upon a scale never before known to the world, and gave to Minneapolis the proud distinction of the leading flour producing section of the world.

Governor Washburne was a most charitable man both in thought and action, and to his public spirit is due the erection of the Washington Observatory at Madison, Wisconsin, the Public Library at La Crosse, the Minnesota Orphan Asylum erected in memory of his mother and as a filial tribute to her virtues, while the donation to the Catholic Sisters, of his beautiful residence at Edgewood, near Madison, marks a catholicity of spirit which knew no narrowness of sectarianism.

Charles L. Colman of La Crosse, Wisconsin, and one of the pioneers of that beautiful inland city, was born at Northampton, Fulton County, New York, February 23, 1826. His father was a farmer for some years, but being of a deeply religious bent of mind, imbued with a burning desire to do good to his fellow man, abandoned farming for the ministry, and was for a number of years a circuit rider of the Methodist denomination, and in 1840 accepted an appointment as missionary to the Oneida tribe of Indians on their reserve about twelve miles west of Green Bay, where for five years he remained, utilizing his knowledge as a farmer in combination with his endeavor to impart religious instruction to the untutored savage.

It was under such influences that Charles Colman spent the earlier years of his life, his education being mainly derived from the parental source, supplemented by two winters' instruction at a school at Green Bay.

In 1845 the family removed to Fond du Lac, where Charles adopted the calling of a farmer, which he pursued for several years, and about 1853 added to it the manufacture of steamed and cut shingles, using horses for his motive power, being associated in this enterprise with a man named Noble.

Not finding so ready a market for their product as the young men believed could be found farther west, they, in 1854, packed their machinery upon a wagon, and utilized their horses to draw the load to the mouth of the Black river, where the city of La Crosse now stands, then but a small hamlet, but eligibly situated to command a large trade in lumber products with the rapidly growing towns of the Mississippi river. At this point we lose sight of Mr. Noble, but Mr. Colman continued the use of his horse-power shingle mill for about two years, when a favoring trade enabled him to substitute a steam engine for the limited facilities of the horse-power. Sawed shingles were at this time but little known, the consumption being restricted wholly to the "rived and breasted" article, and to those which were first steamed in the block to soften the timber, and then sliced to proper shape by a machine so constructed as to bring a thin point and a thick butt alternately. These shingles were at that time finding a ready sale at $5 per thousand, yielding a handsome profit in their manufacture. Being highly prospered, Mr. Colman in 1863 purchased the mill which had been operated by Denton & Hurd, and increased his manufacture to 350,000 shingles daily, until 1868, when the mill was destroyed by fire and was not rebuilt. Previous to this misfortune, however, Mr. Colman in 1866 had purchased the mill of Goldthwaite & Brown (then owned by Peter Cameron), which he refitted to a cutting capacity of 30,000 feet of sawed lumber per day, lumber at this time commanding $27 per thousand log run. In 1869 Mr. Colman added the boilers of his former shingle mill, and increased the mill capacity to 50,000 feet daily, at which it was rated until its destruction by fire in 1875, when it was immediately rebuilt with all the modern appliances which at this date had so completely revolutionized the methods of sawing, the new mill containing two double rotaries with the recently introduced wire rope feed for operating the carriages, two modern gangs, one of 54 and one of 36-inch gate, two double edgers, two trimmers, and a twelve block shingle (saw) machine, the mill having capacity for manufacturing 25,000,000 feet of lumber and 6,000,000 sawed shingles per season. This mill was successfully operated until 1886, when it fell a prey to the flames, and by the opening of the season of 1887 was succeeded by a still more modern mill, containing two band saws, which as the latest evolution of saw mill machinery were just claiming the favor which has since been accorded them for the rapid and economical manufacture of lumber; two gangs, one modern trimmer, two edgers and a full complement of shingle and lath machinery, the capacity of this thoroughly modern structure being 40,000,000 feet of lumber, 16,000,000 shingles and 6,000,000 lath annually.

Mr. Colman's history is an epitome of the development of the lumber manufacture of the country from the crude upright and mulay saws to the rapid but destructive circular, and scarcely less crude gang of the earlier day, giving place in their turn to the equally rapid and far more economical band saw and modern gang, while the cut shingle with its predecessor, the breasted shingle, have been wholly superseded by sawed shingles manufactured by machines which take in twelve blocks at one time. The horse-power and the engine of but a few horse-power have been superseded by mammoth engines of many horse-power, reaching into hundreds, the ratchet and finger feed has given place to steam and wire rope feed; the minor adjuncts of the saw mill suited only to the manufacture of a few hundred feet per day have found successors in the gang edger, the trimmer and live rolls, which have done away to a large extent with manual labor, and, in short, the mill of five hundred feet capacity of which so frequent mention is made in this history, has given place to the vast manufactory in which a daily product of one hundred thousand feet is but an ordinary experience, while a production of three to four hundred thousand feet daily is by no means difficult to locate.

Mr. Colman was married in 1850 to Miss Laura A. Place of Fond du Lac, Wisconsin, who has shared with him the trials incident to pioneer life and the honors accruing to one of La Crosse's most honored citizens and most useful men. With advancing years Mr. Colman is fortunate in being able to throw the cares and burdens of an extensive business upon the shoulders of his three sons, who are worthy assistants of their sire.

John Paul, who is at the head of one of the largest lumber manufacturing industries of La Crosse, was a native of Aberdeen, Scotland, where he spent his earlier years in acquiring an education and in learning the trade of a machinist. The firm to which he was apprenticed having failed, the young man went to London for a time, and at the age of nineteen years crossed the ocean, seeking a broader scene for his activities in the "New World." After spending some time in New York, Albany and Buffalo, in each of which cities he plied his trade and perfected his knowledge of American machinery, he, in 1854, landed in Chicago, and a year later went to Muskegon to take charge of the engine and machinery of the saw mill of Trobridge, Swan & White. In May, 1857, Mr. Paul went to La Crosse, Wis., and there, in 1860, he erected a single circular mill of small capacity, which he operated until 1868, when he replaced this by erecting a much larger mill, containing two circulars and a gang, which, by the frequent addition of new devices and improvements, was enlarged to a capacity for sawing 150,000 feet a day. This mill was destroyed by fire in 1880, and at once rebuilt with the most modern machinery, and has for many years been noted among the largest saw mill operations in the northwest, with a production of 40,000,000 feet of lumber, 12,000,000 shingles and 6,000,000 lath yearly.

In 1890 the business was incorporated under the name of the John Paul Lumber Company, of which Mr. Paul has since held the position of president. Mr. Paul's lumber interests have not been wholly confined to the northwest, as in 1892 he became interested in the timber lands of Georgia and Florida, and in 1896 incorporated those interests in an organization known as the East Coast Lumber Company, with large holdings of yellow pine and cypress timber. This company has commenced to construct and put in operation an extensive saw mill plant at Watertown, Fla.

Mr. Paul has been closely identified with many of the public interests of La Crosse, among which was a directorship for many years in the La Crosse National Bank, of which institution he was in 1892 elected president; a position which he has since held. He has for several years been president of the Black River Boom & Improvement Company, and in various capacities of a public character has illustrated a high degree of good citizenship. In the lumber world he has long been esteemed for his practical business experience and excellent judgment on all matters connected with the lumber business of the northwest; while in civic life his conservative and progressive views have marked him as a valuable citizen, whose long residence at La Crosse from its earlier days has qualified him in a pre-eminent degree judiciously to judge of all measures which have for their end the advancement of the interests of the city and surrounding country.

Mr. Paul was, in 1865, married to Miss Abbie Marie Smith, a native of Connecticut; three sons and two daughters being the result of the union. The three sons—R. H., John J. and A. G.—are connected with their father in the management of the John Paul and the East Coast lumber companies.

In his forty years' connection with the lumber interests of La Crosse, Mr. Paul has been instrumental in adding no less than 800,000,000 feet to the manufactured stock of lumber in the northwest.

Abner Gile of La Crosse, for many years one of the most prominent lumbermen of the Black river region, was born at Gainesville, New York, January 3, 1820. He was the son of Nathan and Lydia (Yates) Gile, and with a common school education, was brought up on his father's farm, where he remained until 1843, when he removed to Waukegan, Lake county, Illinois, where he operated a saw mill in the native hardwood timber, and did some contract work, among which was the building of the piers at Waukegan harbor, following as well the occupation of farming. Upon the discovery of gold in California, he, in 1850, joined the vast company of argonauts which sought the golden state, remaining there but one year, when he returned, and in 1854 settled at Onalaska, Wis. (later removing to La Crosse), and embarked in the lumber and logging business, in which he continued until his death, September 14, 1897, being during all of this time connected with many of the more prominent operations of that locality. Upon reaching Onalaska he engaged in logging operations, at first by himself, and later in connection with N. B. Holway, under the firm name of Gile & Holway, a connection which continued for more than a quarter of a century, and was terminated only with the exhaustion of the extensive pine timber resources controlled by the firm. Later Mr. Gile, in connection with the late Hon. C. C. Washburn, organized the La Crosse Lumber Company and erected the large saw mill since operated by that company. In 1882, in connection with N. H. and Levi Withee and H. A. Bright, he organized and incorporated the Island Mill Lumber Company, of which he was president until his death. He was among the heaviest and most successful logging operators of the Black river, and was interested in many of the more prominent enterprises which have made La Crosse one of the leading cities of the northwest, among which may be named the Batavian Bank, the La Crosse Linseed Oil Works, the Electric and the Gas Lighting Companies, and various other enterprises in the city and county. With an appreciation of the rapidly decreasing supply of pine timber in Wisconsin, Mr. Gile's attention was turned to the increasing value of southern timber, and he became interested in the manufacture of Louisiana red cypress in connection with the incorporation of McEwen & Murray (Limited) at New Orleans, justly believing that that excellent timber was destined to take the place, in a large measure, of the pine of the north in future building operations. He also acquired timber lands in Oregon, and, in connection with Messrs. John Paul and Levi Withee, organized the East Coast Lumber Co., which has large holdings of yellow pine timber in northern Florida, where a mill has lately been put in operation. He also had interests in the state of Arkansas and at other points, his extensive travels over the continent leading his appreciative vision to discern their future value and demand in the business development of the land. He was highly esteemed as a public-spirited citizen and an honorable business man. In politics he was an earnest Republican, and his counsels were always sought in the local politics of the city and county. He was married in 1843 to Miss Mary E. Smith of Waukegan, Ill., and of this union but one child, Mrs. R. A. Scott of La Crosse, survives.

Mr. Gile was an eminent example of what honesty, integrity of character and indomitable industry can accomplish for those who, without capital other than their own native talents, bravely face life's destiny, and overcoming all obstacles, win their way not only to fortune, but to a name and memory of greater value than can be hoped for in the simple accumulation of wealth.

N. B. Holway of La Crosse, Wis., was born at Madison, Maine, May 5, 1824, the son of Zacheus and Azuba (Jones) Holway. The family was of "Cape Cod stock," being descended from the Puritans. With the limited educational advantages of the day, young Holway, at eighteen years of age, went to work in the woods at a compensation of $10 per month for seven years, the compensation increasing to $14 toward the latter part of the period; yet, by economy, he was able to lay up $1,100, with which, in 1850, he joined the army of argonauts, and spent three years in California. Returning east in 1853, he settled at La Crosse, where he engaged in the lumber business, for which his earlier education in the woods of the east eminently and practically qualified him. In 1856 he purchased a one-half interest in company with C. M. Nichols in a saw mill at Onalaska, which he operated until 1859, when it was burned, causing a loss which nearly wrecked his finances, although not affecting the excellent credit which his honorable dealing had fully established.

He now engaged in logging and so continued until 1864, when, in partnership with Abner Gile, he purchased the "Ross" mill at North La Crosse, which Mr. Holway operated until its destruction by fire in 1877, when a larger and more complete mill, modernized to include all of the more recent improvements in saw mill machinery, was erected, with capacity for the manufacture of 20,000,000 feet of lumber and 9,000,000 shingles per season. During these years the company acquired 25,000 acres of timber land in the counties of Clark, Wood and Taylor. Mr. Holway also had 2,000 acres of farming and grazing lands in Faribault county, Minn. His partnership with Mr. Gile terminated in 1888, having continued for twenty-four years in the utmost harmony, notwithstanding the diversity of interests arising from a joint interest in the timber lands from which the mill obtained its log supply, and the individual interest of Mr. Holway in the saw mill itself. While during the long period in which Mr. Holway was busily engaged in his lumber business, he had all the care of the manufacture and sale of a vast yearly volume of business, he lacked in no degree the interest of a public-spirited citizen in all that concerned the welfare of the city of La Crosse. He was a director and vice-president of the Exchange State Bank, and a director in the Batavian Bank, and contributed in no small degree to the success of those institutions. He was a member and trustee of the Universalist church, and was one of its most able and worthy supporters. He was a man of highly social instincts, positive and outspoken in his opinions, yet fair in his judgment of men and measures. For many years a Republican, he, for some years prior to his decease, voted with the Democratic party, and no man questioned the sincerity of the convictions which led to the change. He was not in any sense a politician, and although often urged to accept political nomination for high positions, was fully satisfied to rest content with aldermanic honors, which for several years he consented to receive in the interests of the city. To his employes he was ever courteous, while firm in demanding the service for which he paid, and its performance in the way which he pointed out, and many of his employes remained in his service for long terms of years.

He was twice married, his first wife passing away in 1871, leaving four children. In 1874 he was married to Miss Jessie M. Hogan of La Crosse, sister of Hon. J. M. Hogan, ex-speaker of the Wisconsin General Assembly, who, with her five children, survive him. Mr. Holway died of peritonitis, September 26th, 1892, and was mourned by an entire community which will long cherish the memory of a good citizen and a useful man.

Niran H. Withee.—Levi Withee.—Few, if any, names have been more intimately associated with the lumber trade of La Crosse, Wisconsin, than have those of Niran H. and Levi Withee. Niran H. Withee was a native of Norridgecock, Maine, where he was born June 21st, 1827, the son of Zachariah and Polly (Longley) Withee, of Irish extraction on the father's side, and of English in the maternal branch, both families being of colonial stock antedating the American revolution; Zachariah, born at Norridgecock in 1794, following the occupation of a farmer, at the age of eighteen years becoming a soldier in the war of 1812-16.

Niran H. was one of seven children who obtained the rudiments of an academic education and spent the earlier years of his life upon his father's farm. In 1852 he went to La Crosse and became one of the pioneers of that now thriving city, in which he speedily became identified with its commercial interests, one of its largest land owners, and among its most successful business men. Not long after his arrival he became connected with its logging and lumber interests, and was soon noted as one of the largest operators in this branch of the city's business. In 1870 he removed to Clark county, from whence he conducted the extensive operations which have made his name to be inseparable from the history of what is known as the Black river country, including La Crosse and Clark counties, and generally of the country tributary to the Black river, in whose lumbering operations he took a most prominent part, being among the most active in the improvement of its creeks and streams, in the construction of flooding dams and other improvements for facilitating the lumbering of the stream and the more economic carrying on of the vast industry for which this region enjoys a national reputation. While Mr. Withee was connected with the leading lumber firms of La Crosse, and one of the prime movers in establishing the Island Mill Lumber Co. of that city, he was no less prominent in shaping the affairs of Clark county, in which he resided, holding the treasurership of the county from 1875 to 1882, and serving his county in the general assembly for two terms, during which his influence and ability brought honor to his constituency and great credit to himself.

Mr. Withee was not only a practical and enterprising lumberman, but one who, from his earliest connection with the trade, realized the extent and importance of the industry in its connection with the growth and development of the great west, and wisely laid his plans with these points in view, securing large bodies of wisely selected pine timber lands, and adopting the most economic and intelligent methods in its progress from the forest to the saw mill, and in its manufacture and sale. In all his business and social relations he was recognized as the soul of honor, one who never violated a friendship nor forgot a kind action, charitable in his dealings with his fellow men, and esteemed in social and business circles. He died July 2d, 1887, leaving not alone a competency, but the heritage of a good name and the memory of a useful life for the consolation of his bereaved family.

Levi Withee, a brother of Niran H., and also one of the most prominent among the lumbermen of the Black river country, was born at Somerset county, Maine, in 1834, spending his earlier years upon a farm, and in acquiring an academic education fitting him for the important place which he was destined to fill in shaping the commercial and political interests of the region which was later to recognize in him one of its most enterprising and intelligent business men. Reaching La Crosse in 1859, he found employment with a lumber firm, and not many months later began lumbering on his own account in Clark county, where he has since been recognized as one of the most enterprising and intelligent operators in the lumber field. He was and is one of the largest stockholders in the Island Mill Company of La Crosse, of which he was one of the originators, and was for many years a member of the Bright & Withee Logging Company, a concern which has been long known as one of the most extensive and responsible in the trade. Mr. Withee has been prominent in the local politics of Clark county, and as its representative in the state senate won credit for himself and honor to his constituency. He was married in 1868 to Miss Louisa Smith of La Crosse, in which city he resides, a respected and influential citizen.

George Edwards of La Crosse, Wis., is not only one of the earlier pioneers of the great west, but for many years has been prominent in the retail lumber trade, from which he some years since retired with a comfortable competency. Mr. Edwards was born December 1st, 1818, at Windsor, Broome county, N. Y., and was the son of Joseph and Abigail (Buell) Edwards, natives of that state, and among the number of hardy pioneers who at that early day settled in what were still, comparatively speaking, "western wilds." At the age of nineteen years the boy found his way to Michigan, which was but just beginning to attract attention and which as yet was more largely peopled by the native Indian tribes than by white men, and for a time found occupation with a farmer; but during the same year pushed on still further west to Wisconsin, finding employment with a farmer in Walworth county, where he remained and engaged in farming until 1853, when he located in La Crosse and for a time engaged in the hardware business, and in 1861 opened up a retail lumber yard, being the first, and the pioneer in that line at that point. In 1871 Mr. Edwards engaged in the logging business on Black river, which he continued to prosecute most successfully until 1895, when he retired from active business, at the ripe age of nearly four score years, to enjoy that rest which is due after so many years of useful activity in business life, and an experience such as would be impossible of repetition in these later days, and such as but few now living have realized. Mr. Edwards has been an extensive traveler, and possesses a keen and intimate knowledge not only of his own, but of foreign lands. He was married in 1847 to Miss Electa S. Edwards of Windsor, Broome county, N. Y., four daughters being the issue. Mrs. Edwards died in 1876. Mr. Edwards was, in 1877, elected to the mayoralty of La Crosse, serving with such honor to himself and advantage to his constituency that he was urged to serve a second term, but declined to become a candidate. He has been prominent in Odd Fellowship, having passed all the important positions in that order. That his ancestry dates to the early history of the country is evidenced by the fact that his grandfather, Ebenezer Edwards, who was for many years a pioneer lumberman on the Delaware river, was, in his young manhood, taken captive by the Indians, who held him for seven years before he was enabled to make his escape. The grandmother of our subject was a German lady and the second wife of Ebenezer.

James Vincent.—The family from which James Vincent sprung was of good old revolutionary stock. His grandfather, Jeremiah Vincent, fought seven years for independence and was captain of a military company during that trying time. He lived to the advanced age of ninety-six, was twice married, and his second wife, Mary Vincent, was the mother of Stephen Vincent, the father of our subject. She, too, lived to an advanced age, dying when ninety-four years old. Stephen Vincent was a native of Half Moon, Saratoga county, New York, and at the same place his son, James Vincent, was born, October 16, 1825. The latter was second in order of birth of six children. He grew to mature years with limited educational advantages, as might be supposed at that early period, and assisted his father in the arduous duties of the farm. When sixteen years old he received $8 per month for his work on a farm, but later decided to learn the carpenter trade. In 1849 he was seized with a violent attack of gold fever, which nothing could cure but a visit to the Pacific coast, and in October of that year he reached San Francisco, where he was immediately offered $11 a day and two rations to work for the government. He declined, and went to Stockton, where he worked for one ounce of gold ($16) per day. At the end of a week he branched out in business on his own account. He voted at the first election in California. On account of his wife's illness he returned to the east in 1850; finding her much better, in a few months he returned to California, and with Sylvanus Sayles engaged in contracting and bridge building. He met with unusual success in this enterprise, and remained in California for a year and a half. Again he returned to the east and located at Lansingburg, New York, where he was elected alderman, serving in that capacity for two years. Resigning that position in 1855, he moved with his family to La Crosse, Wis., where he had visited the previous year and where he was much impressed with its possible future. There he engaged in the retail lumber trade, and in 1858 formed a partnership with George Edwards, and added to the business the purchase of wheat and pork. In the fall of 1860 Mr. Vincent, with his usual sagacity, observing the low price of lumber and small quantity of stock, suggested that they invest in this commodity. His partner remarked, "What are you going to do with lumber, you cannot give it away?" "That is the reason we should buy now," replied Mr. Vincent; "no stock in market, prices must advance." The results justified his judgment. They carried on the wheat and lumber business for two years and then gave up grain, adding logging. In

Abner Gies

1875 Mr. Vincent became sole proprietor, and in 1880 took in as partner his son Eugene. The son's death occurred in November, 1884. The business has been conducted under the firm name of James Vincent & Son since. Mr. Vincent is also interested in other enterprises in the city and is a wide-awake man of affairs. He has been twice married, first April 28, 1846, at Lansingburg, New York, to Miss Eliza M. Cole, who died January 7, 1882. They had three children: James P., who died in November, 1865; Eugene, who died in 1884, and Cordell M., wife of F. B. Seymour of Green Bay. On the 3d of January, 1884, Mr. Vincent married Miss Agnes McKillip, daughter of Hugh McKillip of La Crosse. They have one daughter, Agnes. Mr. Vincent's economy and industry have brought him good returns and he can now pass his declining years surrounded by all that makes life enjoyable.

Gideon C. Hixon of La Crosse was for many years one the best known and most enterprising lumbermen of the Mississippi valley. Mr. Hixon was born at Roxbury, Vermont, March 28, 1826, and was educated in the common schools of that day, the curriculum of which had a most practical tendency to develop the latent talents, and to inspire and cultivate those faculties which made the name of "Yankee" noted throughout the world for thrift, enterprise and good common sense. During his yet earlier youth Mr. Hixon's parents removed to Massachusetts, and at a suitable age young Hixon was apprenticed to the tinner's trade with an employer at Springfield, and on finishing his term of service in this line, took up the business of a contractor, possessing, like many others of the day, most versatile talents, enabling him to look beyond the trade with which he was equipped.

To such a man the conservative and slow-going east presented few inducements, while the growing west held out irresistible opportunities for progress, advancement and success in life, and the young man, turning his face toward the setting sun, made his way to Illinois, where, in addition to following his trade, in which he was successful, he engaged in coal mining operations, which proved unfortunate. During a trip to St. Louis his attention was called to the importance of the lumber industry, and his brother-in-law, W. W. Crosby, being a resident of the lumbering city of La Crosse, Mr. Hixon, in 1856, made his way thither, and soon after, in connection with Mr. Crosby, the firm of Crosby & Hixon was formed, and erected a saw mill at the mouth of Black river. The mill contained an upright saw, and was a success from the start. Later Mr. Hixon was associated with Mr. Niran Withee, and Hixon & Withee operated for many years upon an enlarged scale. This firm secured a large tract of timber and erected a saw mill at Hannibal, Mo., in 1866, in connection with A. W. Pettibone, under the firm name of G. C. Hixon & Co. This mill was operated for many years, and with improvements keeping pace with the constant additions to the methods of lumber manufacture, reported, from as early as 1880, a cut of 20,000,000 feet of lumber and 5,000,000 shingles, increased, during the next ten years, to 30,000,000 feet of lumber and 15,000,000 shingles, the company having in the meantime been incorporated as the Hannibal Saw Mill & Lumber Company. (See Hannibal.)

In 1883 Mr. Hixon, with A. W. Pettibone and others, purchased an interest in the operations of T. B. Scott at Merrill, Wis., and organized the T. B. Scott Lumber Company, which, with capacity for the manufacture of 25,000,000 feet of lumber and 17,000,000 shingles, has for many years ranked among the best manufacturing concerns of the northwest. (See sketches T. B. Scott and A. W. Pettibone.) Mr. Hixon was also largely interested in the Gem City Saw Mill Company of Quincy, Ill.

Mr. Hixon was one of the largest investors in pine lands of the Chippewa valley, never losing faith in their value, and in addition to his manufacturing interests, dealt largely in these lands, in addition to extensive sales of logs and stumpage. Mr. Hixon was warmly esteemed at La Crosse for his public spirit and the interest which he manifested in the welfare of the city. He assisted in the organization of the La Crosse National Bank, and until his death was its president and confidential adviser, his sterling character giving the institution strength, credit and popularity. He was largely interested, also, in the Listman flour mill of La Crosse, and, while not a politician, represented his district for several terms in the legislature and state senate of Wisconsin. As a citizen of La Crosse he was recognized as one of the most public-spirited, ever encouraging and assisting in forwarding every proposition looking to the city's increased prosperity. Generous to a fault, he was modest, and none knew of his benefactions save the recipients, of whom many a young man could testify to his timely aid in obtaining a start in life. As a banker it was his policy to aid, rather than harass or withhold, in any case where timely aid would tide over a temporary embarrassment, or assist a struggling applicant to maintain his business credit. He was a good financier, and while conservative in his views, formed an unbiased judgment upon all matters which appealed for his advice or opinion.

Mr. Hixon was twice married, his first wife having no children; his second wife was Miss Ellen J. Pennell of Honeoye, New York, who, with five sons, Frank, Joseph, George, William and Robert, survived him, his death occurring September 23, 1892, after five years of patient suffering from heart trouble, maintaining his business activities until within a few months of the end. Few citizens of La Crosse have been more highly respected or more sincerely mourned.

Frederick Allen Copeland.—Prominent among the business men of La Crosse is Mr. F. A. Copeland, who is at the head of the La Crosse Lumber Company of that city. Mr. Copeland was born at Ypsilanti, Michigan, July 14, 1846, his parents, of old New England stock, having removed from Lowell, Massachusetts, to that city in 1840, and subsequently taking up their residence in northern Wisconsin. Although but fifteen years of age at the outbreaking of the war of the rebellion, Frederick was imbued with patriotic principles, and December 3, 1861, enlisted at Baraboo, Wis., as a member of Co. F, Third Wisconsin Cavalry, and served with his company in campaigns in Kansas and Missouri during the year for which he had enlisted. In 1862 he was veteranized, and after enjoying for a brief period the pleasures of a veteran's furlough, was advanced to the position of commissary sergeant. In 1863 he was detailed as chief clerk at the headquarters of Gen. C. W. Blair. In the reorganization of the regiment, in the spring of 1865, he received his commission as second lieutenant, and was soon after made quartermaster. The battalion being mustered out of service at Madison, Wis., October 23, 1865, he obtained a position as clerk in a dry goods store at Baraboo, following that occupation for three years. In 1869 he entered the employ of the Milwaukee & St. Paul railroad at La Crosse, and a year later took a position with the Southern Minnesota Railroad Company, soon after transferring his services to the agricultural implement firm of Hart & Norton.

The young man had not yet, however, found the occupation which would be the most congenial, or the best suited to his talents, and, learning that the La Crosse Lumber Company was in want of a bookkeeper, his application was successful over those of fourteen others who aspired to the position. "There is a providence which shapes our ends, rough hew them as we will," and Governor C. C. Washburne, then president of the company, was not slow to discover that Mr. Copeland was just the man whom he wanted to assist him in the onerous duties which his multifarious interests imposed. In 1875 Mr. Washburne purchased the interests of the other stockholders and for several years was sole owner of the interest.

By this time Mr. Copeland had become thoroughly indoctrinated into the mysteries of manufacture, sale and shipment of lumber, and Mr. Washburne well knew his man, when, in the fall of 1880, he gave him instructions to go into the woods and take charge of the lumber camps which were to put in a large stock of logs. Somewhat distrustful of his knowledge of this branch of the business, Mr. Copeland asked for more explicit instruction as to his duties, and was told "Go up and find out for yourself, and if you find nothing to do, return and I shall have no further use for your services." Mr. Washburne knew his man and his methodical habits, and was not surprised in the spring when Mr. Copeland presented a detailed report showing the exact cost incurred in feeding men and teams, and for the labor in getting out the winter's log stock, and shortly after placed him in full charge and management of his business interests at La Crosse, in which capacity he continued until Mr. Washburne's death, in 1882, and as by the terms of Mr. Washburne's will the business was to be settled up in five years, Mr. Copeland was retained in the management, and at the expiration of the term was found to have increased the assets of the estate more than $300,000 above the original valuation, and in April, 1887, the executors submitted to Mr. Copeland a proposition for the purchase of the mill property, which that gentleman accepted, and has since operated the property most successfully.

The mill, as remodeled in 1890, consists of one circular, one band and a Wickes gang, with a daily capacity for cutting 200,000 feet of lumber, 125,000 shingles and 40,000 lath, or an annual capacity of 26,000,000 feet of lumber and 16,000,000 shingles, with 6,000,000 lath, having at this time a timber reserve equal to about six years' manufacture.

Mr. Copeland was named by Mr. Washburne as one of the trustees for the erection of the public library at La Crosse, provided for in his will, and to the good taste of Mr. Copeland is the city indebted for the attractive architecture and excellent arrangement of this beautiful building. Notwithstanding the onerous duties devolving upon the management of so extensive a lumber business as is presented in the La Crosse Lumber Company's operations, Mr. Copeland was a prominent factor in the organization of the Edison Electric Light & Power Co., and a director in the Gas Co. of the city; is a director in the Batavian Bank; the Exchange State Bank; the Brush Electric Light Co.; the La Crosse Theater Co., and other enterprises involving the growth and prosperity of the city. He has also a record in connection with military affairs as a member of the Wisconsin State Guard, having, in 1871, been elected captain of the La Crosse Light Guards, and in 1884 receiving an appointment upon the military staff of Gov. Rusk and with a commission as colonel, being assigned to the duties of assistant inspector-general of the volunteer forces of the State. In 1891 he was elected mayor of La Crosse.

Mr. Copeland is a member of the various Masonic bodies and of the Grand Army of the Republic and Loyal Legion. He was married in 1874 to Miss Cora Rudolph of La Crosse, two daughters being the fruit of the union.

Albert W. Pettibone of La Crosse, Wis., was a native of Vermont, where he was born in 1827, and continued to reside until the breaking out of the gold excitement of 1849, when he joined the noble army of argonauts and spent three years in the golden state; during this time he erected a saw mill between the south and middle forks of the Yuba river, finding market for his lumber at the rate of $100 per thousand feet, mill run. Returning to the east in 1854, he settled at La Crosse, and in company with F. M. Rublee, who some two or three years before had built the first saw mill at the mouth of the La Crosse river, engaged in lumbering. An interesting item of the history of the mill and logging business at that time is found in the firm's experience. Stowe, Boomer & Boyington had a bridge building contract with the Chicago & Rock Island railroad, and Pettibone & Rublee undertook to supply the timber for the bridge across the Mississippi at Rock Island, the specifications for which included a large amount of 8x16, in forty to fifty foot lengths, and a total quantity of 2,000,000 feet, at the contract price of $17.50 in the log, delivered at Rock Island. One and a half million feet had been delivered, and the balance rafted, but it was unfortunately caught in a jam of logs, on its way down the river, and was delayed, causing the firm a forfeiture of $3,000, named in the contract as liquidated damages. Only a lumberman, knowing the difficulty of filling such a bill, can appreciate the loss which the firm sustained in the transaction, or the character of the timber on Black river which would enable such a bill to be readily filled.

In 1856, in company with I. M. Hill and others, Mr. Pettibone purchased the water-power mill and site owned by David Robinson, on Robinson's Creek, and erected a new dam and mill, which, in consequence of the financial stringency of 1857, was operated for several years in a desultory manner and only as conditions seemed to warrant. In 1866 Mr. Pettibone, in connection with G. C. Hixon and Niran Withee, built a saw mill at Hannibal, Mo., with capacity for sawing 50,000 feet daily, from logs rafted from Black river. The firm was known as G. C. Hixon & Co., and with an increase from time to time in the capacity of the mill, until it reached 100,000 feet per day, it was operated until 1882, when it was destroyed by fire. The company now organized and incorporated as the Hannibal Saw Mill Company, and erected a mill of 150,000 feet daily capacity upon the old site. Of this company Mr. Pettibone is president, and his son, Wilson B. Pettibone, vice-president. (See Hannibal.)

In 1883-4 Messrs. Pettibone and Hixon purchased a mill at Merrill, Wis., together with 300,000,000 feet of standing pine, from the late Thomas B. Scott, and organized the T. B. Scott Lumber Company; the old mill was torn down and a new and thoroughly modern mill of 250,000 feet daily capacity took its place. (See sketch T. B. Scott.) In 1890, in company with D. Dulany of Hannibal, and others, Mr. Pettibone organized the "Gem City Saw Mill Co." of Quincy, Ill., and purchased of the Quincy Lumber Co. a mill of 150,000 feet daily capacity at Quincy; Mr. Dulany being president, and John Wisdom manager.

Mr. Pettibone has been ably assisted in these and many other business enterprises by his son, Wilson B. Pettibone, who became connected with the business affairs of his father at the early age of eighteen years, and having grown up under an atmosphere of enterprise and thrift, is accounted second only to his father in business adaptability in handling big operations such as have marked the history of his honored parent. In 1870 two brothers named Grandon, from the east, located 250,000 acres of the excellent yellow pine of Missouri, and erecting two saw mills, established the village of Grandon in that state, upon the banks of a small basin-like lake, forty feet in depth, fed by living springs which formed an ideal mill pond, and in 1894 the Messrs. Pettibone became interested through the purchase of an interest in the Grandon Lumber Company.

Through the entire period of a long, busy and useful life, A. W. Pettibone has been esteemed most highly in the communities amid which his activities have been displayed; he has served as mayor of the city of La Crosse, but has not otherwise engaged in politics. Happy in his personal and domestic life, he has combined unusually happy and successful business pursuits, with an influence upon those who have come in contact with him of a most healthful nature.

David Austin of the firm of Sawyer & Austin of La Crosse, Wis., was by birth a Scotchman, having first seen light in 1826. His parents came to America in 1835, and settled in Cattaraugas county, N. Y., where David received such limited education as was afforded by the common schools of the day, while before attaining his majority he had become familiar with all of the various branches of lumbering in the woods, in rafting upon the Alleghany river, and in work in saw mills. In 1847, in company with a brother, he erected a mill nine miles from Olean, N. Y., and sawed by the thousand for one year, purchasing in the following year a tract of 100 acres of pine, which he logged and sawed, combined with the manufacture of shaved shingles, the only kind known to the day, and an article in good demand at all points where lumber was needed, the lumber of that period being almost wholly consumed in building, manufacturing industries not having developed to a stage demanding large quantities of box-making material which the demand of a later day has so largely consisted of. The shingles of that period were "rived" by a "froe" in the woods, and "breasted" and "shaved," packed in bunches containing 500 pieces, and loaded upon the top of a lumber raft for transportation to a market, which, in Mr. Austin's case, was found at Cincinnati and other points on the Ohio river. Two years later Mr. Austin sold his property, and erected a steam saw mill nine miles up the river, which he operated until 1860. In the year 1857, so well remembered by all business men of that period as one of great financial depression, he formed a partnership with John N. Russell, and opened a lumber yard at Columbia, a suburb of Cincinnati; but finding no sale for lumber, and with bills coming due, they decided to load some flat boats with lumber and shingles, and, floating down the river, stopped at various points to retail their stock in such quantities as might be wanted, remaining at one town only so long as the extent of trade would warrant. One trip, which extended so far as Vicksburg, Miss., proved sufficiently successful to enable them to meet all their obligations, while many who relied upon home markets for the sale of their lumber were swallowed up in the maelstrom of that disastrous panic. One of his trips with a flat boat was up the Missouri river to Kansas City, which, with the advent of the railroads, and the phenomenal growth of the surrounding country, has since become one of the leading lumber distributing centers of the great west. Mr. Austin's last trip down the Alleghany river was in 1868, about which time, in company with Caleb Jewett of Bay City, Mich., he formed the firm of Jewett & Austin, and opened a wholesale and retail lumber yard at Cleveland, Ohio, which, four years later, was sold to Mills Brothers of Marysville, Mich.; it being the inception of the large business since conducted by the latter firm (at Cleveland), of whom extended mention is made in the history of the St. Clair river of Michigan. Soon after disposing of the Cleveland yard and dissolution of the partnership with Mr. Jewett, Mr. Austin went to La Crosse, Wis., where he formed a connection with Averill E. Sawyer of Black River Falls, and from 1872 the firm of Sawyer & Austin were extensive loggers from large tracts of land which they had purchased, selling a portion of the logs on the bank, and having the balance sawed at various mills at La Crosse, their cut being from six to ten million feet of logs per season.

Continuing the logging business until 1882, they, in that year, purchased a large mill which had been recently erected by R. A. Moore at North La Crosse, which they continued to operate until the death of Mr. Sawyer, in 1885, the business continuing until 1887, when the Sawyer & Austin Lumber Company was incorporated, with David Austin president and manager, Mrs. A. E. Sawyer vice-president, and Mrs. Sawyer's son, W. E. Sawyer, secretary and treasurer, and the company has since continued, ranking among the best known and most successful manufacturers of the northwest.

Without changing his business relations, Mr. Austin, in 1881, had removed his residence to Sparta, Wis., but subsequently removing back to La Crosse, he was, in 1888, elected mayor of that city, the ignoring of party ties in the election being manifest in a majority of 1,028 for Mr. Austin. Upon this occasion he received the following note of congratulation from his former home in Sparta:

> "Hon. David Austin—Your former friends and neighbors of Sparta send greeting and congratulations. Our confidence in the future prosperity of La Crosse is strengthened by your election to the mayoralty."

This dispatch was signed by seventeen of the leading citizens of Sparta, regardless of political affiliations, and evidences the high esteem felt for Mr. Austin in that section, a sentiment which was shared by all who knew the sterling qualities of the man, and his business and moral qualifications to mould the destinies of a commonwealth.

Mr. Austin has always taken a deep interest in educational matters in the city of La Crosse, having served for several terms as a member of the school board of that city, and three times elected to its chairmanship. He is a member of the Nineteenth Century club, one of the leading literary associations of La Crosse, and of the La Crosse club, a social organization. Kindly in disposition, Mr. Austin is genial in temperament, charitable and sympathetic and broad in view. With business qualities of the highest order, no man has to a greater extent gained the confidence and esteem of his fellow men, and none have to a greater extent deserved such confidence.

The mill of the Sawyer-Austin Lumber Company ranks among the larger of the Mississippi river, its record being for the manufacture of about 30,000,000 feet of lumber and 25,000,000 shingles per year.

Mr. Austin has been married twice. His first wife, whom he married in 1851, was Miss Lavina Crosby of Franklinville, N. Y.; her death occurred October 1, 1864. In 1866 he was united in marriage with Miss Millie Baillett of Cattaraugus, N. Y.

Averill E. Sawyer of the firm of Sawyer & Austin of La Crosse in earlier days, and until his death in 1885, was born at Freedom, N. Y., in 1826. He was the son of Earl and Mary (Davis) Sawyer, both of whom were natives of Vermont, and removed to western New York at an early day. Averill E. worked upon his father's farm during and after the brief period during which he enjoyed the privileges of the district school, and at an early age engaged in mercantile pursuits at Humphrey Center, N. Y. In 1850 he went to Great Valley, where he remained until 1853, when, after a trip to the south, he located a notion supply house at Port Dickinson, where he made his home for the next four or five years. About 1858 he went west and settled at Brownsville, Minn., where, for two years, he had a lumber yard in connection with a general store. In 1860 he settled at Black River Falls, where, in connection with a general store, he carried on the business of logging, and about this time, in company with the late Hon. W. T. Price, took a contract to furnish the ties for the Southern Minnesota railroad. The firm also maintained a stage line between Sparta and St. Paul. Through the various ramifications of his business, Mr. Sawyer became interested in the logging business, and in 1872 was joined by David Austin (see sketch), and with the purchase of large blocks of land, the firm, with a constantly enlarging business, continued in the logging business until 1882, their operations amounting to from six to ten million feet of logs per year, the larger proportion of which was sold in the log at the banking ground, or delivered at the mills at La Crosse, a portion being manufactured for their own account and sale. In 1882 the firm purchased the saw mill at north La Crosse, which had recently been erected by R. M. Moore, and operated it with their own log stock until the death of Mr. Sawyer, three years later, after which event the business was carried on in the name of the old firm until 1887, when articles of incorporation were obtained for the Sawyer & Austin Lumber Company, of which Mrs. Sawyer became vice-president, and her son, W. E. Sawyer, secretary and treasurer. The mill of this company rates as of capacity for the manufacture of about 30,000,000 feet of lumber and 25,000,000 shingles per year, and the reputation of the company, not only for the character of its stock, but for honorable dealing, maintains the high standard established during the long and active business career of the elder Mr. Sawyer.

Mr. Sawyer was a man of liberal mind, and of charitable heart, who possessed the confidence and respect of all who had dealings with him. Social in his instincts, he was a valued member of the Masonic body, and his life was moulded upon the noble tenets of that order. He was married in 1851 to Miss Lida Baillett of Cattaraugus, N. Y.; one son, William E., being the issue.

William E. Sawyer was born in 1858, and with the excellent advantages of the common and high schools of La Crosse, may be said to have grown up in the office and business of his father, well fitting him to occupy the responsible position of secretary and treasurer of the Sawyer-Austin Company, which he has held since its incorporation, in 1887. He, in 1881, married Miss Mary Stella La Rowe of Portage, Wis. He is a member of the Masonic fraternity and Shrine, and is considered a most worthy scion of an honored paternity, filling in a pre-eminent degree the void which was felt by an entire community when his lamented father was called from life's activities.

No partnership or incorporation in the great northwest has ever been regarded more highly in its individual or corporate relations to the business world than that which was established by Averill E. Sawyer in conjunction with David Austin, and which of late years has been under the practical management of W. E. Sawyer.

CHAPTER XXXIII.—THE RAILROADS OF WISCONSIN.

WISCONSIN CENTRAL.—WISCONSIN VALLEY.—GREEN BAY & MINNESOTA LUMBER LINE.—MILWAUKEE & LAKE SHORE R. R.

UNTIL about 1874 the shipments from the mills of various sections of Wisconsin were wholly by water, the mills on the east side of the State availing of the facilities of lake navigation, while those located upon the Wisconsin river, and as well upon the Chippewa and Black, rafted their product to a market. As a natural result but few mills were located at any great distance from floatable waters available for rafting lumber as well as logs.

The product of the mills on the banks of the Wisconsin river was rafted largely to markets upon the Mississippi, and this gave employment to many men, who, on coming out of the camps or from the log drive in the spring, found occupation in manning lumber rafts, which were constructed at the mills as fast as the lumber was sawed, and which have already been described as to their make-up and character. With the building of railroads, which now extend to all portions of the State, river rafting was discontinued at nearly all points, only a few mills on the Chippewa waters, or those of the Black river, still continuing the practice.

Statisticians found great difficulty in their earlier compilations to obtain records of the mill cut upon the Wisconsin river, and by 1880 railroad facilities had so far increased, and of which manufacturers had to so great an extent availed, that river statistics were abandoned, and the mills which had hitherto been classed in that category now began to be treated exclusively as railroad mills. The first compilation of the work on the Wisconsin river dates from 1873, in which year there was noted the existence of one gang and forty-seven circular saws, and gang edgers had been adopted in thirty-five of the saw mills. The reported cut of 1873 included 125,000,000 feet of lumber and 53,800,000 shingles; that of 1874, 121,600,000 feet of lumber and 45,025,000 shingles; 1875, 119,600,000 feet of lumber and 106,250,000 shingles. In 1879 the cut was reported at 153,747,000 feet of lumber and 169,439,000 shingles, and from this time the record is wholly transferred from the river to the railroads, which for several years had enjoyed a portion of the traffic. With a reported aggregate of 1,100,000,000 feet credited to the river from 1873 to 1880, we may safely set down to the credit of the Wisconsin river a grand aggregate production of fully 3,000,000,000 feet for the period embraced between 1835 and 1897, there being some rafting carried on even to the present time.

WISCONSIN CENTRAL RAILROAD.

The first record of railroad lumbering is found in 1874, when mills which had been built upon the line of the recently constructed Wisconsin Central road, which was in operation from Neenah, in Winnebago county, to Westboro, in Taylor county, begin to figure in the reports. This road crossed the Wisconsin river at Grand Rapids and penetrated a region both east and west of the river, which could to but a small extent avail of river rafting, but being prolific in pine timber, mills were built upon its line as fast as the laying of the rails gave encouragement, and the records of 1874 show a production of 7,275,000 feet of lumber and 22,000,000 shingles. In the records of 1876 we find fifteen saw mills, operating sixteen circular saws, with eleven double edgers, and a rated capacity in gross of 72,500,000 feet, the record naming a production in that year of 31,530,000 feet of lumber and 132,700,000 shingles, produced at mills as follows, viz: Taylor & Duncan, Westboro, 7,000,000; L. M. Marshall, Chelsea, 2,000,000; at Medford: McCartney & Whelan, 5,000,000; Stetsonville: L. S. Stetson, 1,000,000; Dorchester: R. E. Evans, 1,500,000; Sands & Buell, 500,000; Colby: J. S. Edmiston, 25,000; H. W. Ross & Co., 30,000; E. Decker & Co., 1,000,000; Unity: Spaulding, Van Hoosear & Co., 2,500,000; Spencer: J. W. Robinson, 3,000,000; Manville: B. F. McMillan & Bro., 2,700,000; Mann & Co., 2,000,000; Auburndale: Haskins & Co., 4,000,000; Waupaca: Paine & Co., 500,000; Weyauwega: Werd, Gumar & Co., 2,500,000.

From this date the development of the lumber industry on this line of road was rapid, reaching 302,000,000 feet of lumber and 194,000,000 shingles in 1884, hovering between three and four hundred millions of lumber and one hundred and fifty millions of shingles until it reached a climax in 1892, with 403,478,121 feet of lumber and 129,589,000 shingles in that year; dropping rapidly each year to a production in 1897 of 134,132,000 feet of lumber and 19,583,000 shingles, indicative of the rapid depletion of the forests tributary to this line, which has for several years found its northern extension at Ashland. The total reported production of this road from 1874 to 1897 was 4,599,177,000 feet of lumber and 2,646,435,000 shingles, which, reduced to logs, and ten per cent added for non-reporting and missing years, gives a grand total of 5,422,979,000 feet of timber as the product of the forests upon its line, no estimate being added for lath, pickets, cedar, oak and hemlock ties, and telegraph poles, which would easily add thirty-three and one-third per cent to the volume.

WISCONSIN VALLEY R. R.

The Wisconsin Valley railroad first appears in the statistical compilations gathered by the lumber journals, in 1880, up to which time the Wisconsin river received credit for the manufacture, the mills being in nearly all cases located upon the river bank, and until this date rafting their stock, or a large proportion of it, down the river. By 1880, however, the road had reached the north line of Marathon county, and in that year reports were made from mills upon its line as follows: Jenny: Thomas B. Scott, 10,000,000; Jenny Lumber Co., 7,000,000; Trappe: J. T. Callon, 2,500,000; Wausau: Clarke, Ireland & Co., 13,000,000; J. & A. Stewart, 17,000,000; Wausau Lumber Co., 9,700,000; B. Single, 3,000,000; L. S. Cohen, 4,500,000; B. G. Plummer, 5,500,000; Schofields Mills: C. P. Hazleton & Co., 10,000,000; E. J. Glendening, 2,500,000; W. P. Kelley & Bro., 4,250,000; Mosinee: J. Dessert, 8,000,000; S. Kronenwetter, 1,500,000; Knowlton: J. H. Redfield, 2,000,000; Starke Bros., 1,000,000; Beans-Eddy: McCullough & Bailey, 2,000,000; Hutchinson: C. Van Buskirk & Bro., 4,000,000; John Work (burned out August 6), 1,150,000; Eau Pleine: Wallace & Redford, 4,500,000; Segelke & Brickley, 4,000,000; Eau Pleine Lumber Co. (Runkle's Mills), 2,000,000; Centralia: Wharton Bros.. 7,000,000; M. R. Hanson, 1,400,000; Port Edwards: John Edwards & Co., 8,000,000; Remington: H. W. Remington, 1,400,000; Mather: D. A. & C. A. Goodyear, 5,100,000; a total of twenty-seven mills, with a production of 141,902,000 feet of lumber and 81,300,000 shingles. Two years later the report from this road reached 236,205,388 feet of lumber and 165,000,000 shingles, and hung at about these figures until in 1887, when it reached the 300,000,000 mark, steadily advancing until 1892, when the report aggregated 464,990,000 feet of lumber and 218,764,000 shingles, dropping over one hundred million two years later, and pursuing a downward course to a total of 181,418,261 feet of lumber and 46,801,500 shingles in 1896. The aggregate volume of lumber production on this road, as shown by the yearly reports, gives a total of 4,852,000,000 feet of lumber and 2,303,929,600 shingles, which, reduced to logs, gives a total of 5,140,000,000 feet, to which may safely be added ten per cent for non-reported, giving a grand total in round numbers of five and a half billions of feet in the district represented by this road. (See also chapter on Chippewa valley.)

GREEN BAY & MINNESOTA R. R.

The first recorded statistics of the Green Bay & Minnesota railroad is in 1874, when Henry Herman, at Black Creek, in Outagamie county, reported a cut of 500,000 feet; Warren Springstead, at New London, 1,500,000; and Isaac Brown, at Northport, in Waupaca county, 2,000,000 feet, a total of but 4,000,000 feet. In 1875 Letter & Appleton, at Black Creek, reported 1,000,000; Baldwin Bros., at Baldwin's Mills, 300,000; and N. Livermore, at Ogdensburg, 800,000, which, with the mills previously mentioned, increased the production to 6,100,000 feet upon the line of road. In 1876 Willey, Green & Bertshey, at Shiocton, were added to the list, with a production of 5,000,000; Jackson, Faust & Co., at Merrillan, 800,000; and C. N. Paine & Co., at same place, 4,000,000, bringing the production of the year up to 17,750,000 feet, from nine mills operating nine circulars, six of the mills being provided with double edgers, the other three apparently clinging to the old method of edging upon a sliding table or upon the top of the log. The estimated producing capacity of these mills, at ten hours per day, was 34,500,000 feet, or about double the actual production. The region included in Outagamie and Waupaca counties traversed by this road was never a heavy lumber-producing section, and further statistics regarding this road are mixed with those of the Wisconsin Central and other roads, which form a more direct line to the south, and cannot be distinctively treated, while an estimate of the total gross production upon the line may safely be set down at 1,000,000,000 feet of timber, not included in other estimates.

CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA R. R. (Lumber Line.)

The first compilations of statistics regarding the Chicago, St. Paul, Minneapolis & Omaha railroad, commonly known as the "Lumber Line," begin in 1881, at which date there were in operation forty mills, with three gangs and forty-three circular saws, having an estimated capacity for producing 200,000,000 feet of lumber, and employing 1,230 men; of these mills but nineteen reported a cut for that year, aggregating but 55,837,000 feet of lumber. The following year, however, all seem to have been operated, and the production in 1882 is named at 196,999,934 feet of lumber and 55,837,000 shingles. These mills were located as follows, viz: Lowries: P. H. Putnam, estimated capacity 3,000,000; cut of 1881, 600,000; Warrens: George Warren, 4,000,000; Millston: Withee & Penniwill, at both Millston and Rudds, capacity 5,000,000 (cut 1,000,000); Mills & Bro., capacity 1,000,000; W. O. Parmelee, 2,000,000; Shippards: A. C. Shippard, 500,000 (cut 260,000); Black River Falls: S. P. & R. C. Jones, 3,000,000; Merrilan, Meldal & Lunde, 2,500,000; Wakefield & Trow, 4,500,000; D. B. Lyon & Son, 1,800,000 (cut 1,200,000); Humbird: E. D. Carter, 12,000,000 (cut 11,000,000); Fairchild: N. C. Foster, 13,000,000; M. Pedrick, 2,500,000; Wilson: West Wisconsin Manufacturing Co., 5,000,000 (cut 500,000); C. C. Crane, 500,000 (cut 300,000); Hilton & Crane, 450,000;

C L Colman

Barron: Geo. Parr & Son, 1,000,000 (cut 500,000); Woodville: Woodville Lumber Co., 3,500,000; Wildwood: E. S. Austin, 8,000,000; Olivet: Tio & Preston, 200,000; Bloomer: J. W. Smith, 2,000,000; Cartwright: D. J. Cartwright & Co., 900,000 (cut 200,000); Chetek: P. Benson, 4,000,000; Forest Lumber Co., 5,000,000; Granite Lake: L. O. Larsen, 2,000,000; Knapp, Stout & Co. Company (included in Menomonie); Cumberland: L. O. Larsen, 1,500,000; Beaver Lake Lumber Co., 12,000,000 (cut 155,000); Oliver & Co., 8,000,000; Soule & Rood, 5,000,000 (cut 4,000,000); J. D. Graw & Co., 5,000,000; J. Bennett, 1,000,000; Northern Lumber Co., 5,000,000 (cut 3,500,000); Turtle Lake: S. F. Richardson & Co., 3,000,000 (cut 500,000); Drummond: Rust, Owen & Co., 1,000,000; New Richmond: New Richmond Lumber Co., 6,000,000 (cut 2,100,000; Clear Lake: C. R. & W. S. Jewett, 4,000,000 (cut 2,372,000); J. E. Glover & Co., 6,000,000 (cut 600,000); Hayward: North Wisconsin Lumber Co., 1,000,000; Perley: Andrews & Perley, 9,000,000; Pineville: Lacey & Jones, 8,000,000; Clayton: Humbird & Co., 7,000,000 (cut 3,500,000); Barronette: Barronette Lumber Co., 11,000,000(cut 22,500); Shell Lake: Shell Lake Lumber Co., 22,000,000; making a total capacity of about 200,000,000 at that time, had the mills all been complete and in operation. From about 200,000,000 feet in 1882, the reports increased from year to year, until, with 1884 as the high water mark at 288,095,526 feet of lumber and 134,332,000 shingles, the production ranged about 275,000,000 until 1894, when but 178,942,000 feet of lumber and 75,491,000 shingles were reported, dropping in 1896 to 148,466,773 feet of lumber and 29,931,000 shingles. The total reported cut of this road from 1882 to 1897 aggregates 3,715,688,429 feet of lumber and 1,636,238,900 shingles, which, reduced to logs, with an addition of ten per cent for unreported, gives a grand total of 4,313,218,291 feet, or in round numbers four and one-half billion feet as the product of this road, which will probably add one billion feet to the future reports of production upon its line, and in addition has in its territory large quantities of hardwood and hemlock as a future resource for many of its mills.

MILWAUKEE, LAKE SHORE & WESTERN R. R.

The compiled history of the lumber industry of the Milwaukee, Lake Shore & Western railroad begins with the year 1884, at which time Reedsville, in Manitowoc county, on the south and east, and Rhinelander, in Oneida county, on the north, embraced the extremes of territory then covered by the line, which traverses Manitowoc, Calumet, Outagamie, Waupaca, Portage, Shawano, Langlade and Oneida counties, to Ashland on Lake Superior, with spurs in several directions to lumber-producing points. The statistical record of 1884 names the following points and parties at that time operating upon this line, the mills having no other outlet for their production (statistics are wholly lacking enabling anything like a correct statement of the date of building these mills, which followed with the construction of the line): Reedville: Hubbard & Noble, 2,000,000; Brillion: 3,000,000 and 1,000,000 shingles; New London: Nash, Weatherly & Co., 4,000,000; Embarrass: D. Brightman, 1,000,000; Clintonville: L. Rohrer & Sons, 2,500,000; Marion: McDonald, Ramsdell & Co., 3,500,000; Tigerton: Tigerton Manufacturing Co., 5,500,000, shingles, 2,500,000; Whitcomb: H. Raymond, 300,000; Wittenburg: Shawano Lumber Co., 2,000,000, shingles, 500,000; Eland: W. K. Rideout, 4,000,000, shingles, 800,000; Birnamwood: J. Towle, 2,000,000; Norrie: Rideout & Bryant, 4,500,000, shingles, 4,916,000; Hatley: H. M. Wadleigh, 8,000,000; Kelley (estimated): N. T. Kelley, 11,000,000, shingles, 7,000,000; Anicoa: J. T. McAlpine, 5,000,000; Elmhurst: J. S. Wonderlich, 2,300,000, shingles, 3,500,000; Phlox: J. S. Louis & Son, 2,000,000; Antigo: J. H. Weed, 19,000,000, shingles, 21,000,000; Novotney Bros., 3,000,000; Hermann Bros. & Co., 1,000,000; Summit Lake: Schmit Bros. & Co., 2,500,000, shingles, 2,800,000; Rhinelander: Tolman, Conro & Co., 5,900,000, shingles, 6,300,000; Brown Bros., 5,250,000, shingles, 5,000,000; a total production by the pioneers on that line of road of 99,232,878 feet of lumber and 55,324,250 shingles in 1884. The increase of production was quite rapid, and with extensions of the line into new territory, the reports from its mills exceeded 203,000,000 of lumber and 91,000,000 shingles in 1884, remaining below 300,000,000 until 1892, when they reached 409,700,984 feet of lumber and 290,255,000 shingles, from which they fell each year to 206,115,454 feet of lumber and 43,968,750 shingles in 1896. The grand total of production reported by the mills of this line to the present time aggregates 3,014,990,068 feet of lumber and 1,898,629,500 shingles, which, reduced to logs, gives, with the addition of ten per cent for non-reported stock, a grand total of 3,677,000,000 feet of timber obtained from the forests adjacent to this road since 1884.

CHAPTER XXXIV.

LATH.—HARDWOOD.—HEMLOCK.

WHILE in these pages no endeavor has been made to individualize the lath cut, because of the desultory manner of collecting statistics with regard to their production, they having been looked upon as a bye product of the mills, being manufactured from slabs, there has, since 1891, been a yearly compilation undertaken by the publishers of The Mississippi Valley Lumberman, published at Minneapolis, from which the production at the mills of the Mississippi, St. Croix, Chippewa and Black rivers, the Duluth district, Ashland and the lines of railroad in Wisconsin, is approximated, and gives a fair index of the importance of this branch of the lumber industry during later years. No compilations are feasible looking to the lath production of Michigan, as none have been systematically undertaken, and at the leading producing points slabs for fuel in the manufacturing of salt have been of greater value for that purpose than in the manufacture of lath, while yet the latter have been produced to a vast extent at many of the interior mills and at points where no salt manufacture is found.

In the districts named above, the lath production is stated as follows, viz: 1891, 835,219,400; 1892, 993,109,707; 1894, 835,488,000; 1895, 785,334,000; 1896, 536,275,000; 1897, 596,248,000; a total for six years of 4,581,674,107 pieces, whose equivalent in logs would be 458,167,410 feet. The average production of lath, according to these compilations, was 763,612,351 for each of the six years enumerated, and assuming the correctness of the figures, we may further safely assume the same average for the period between 1880 and 1891, during which time the production of lumber was extended over the territory covered by rail transportation, and the eleven years' product would aggregate 8,399,735,861 pieces. We may safely assume that for the period from 1860 to 1880 no less than one-half of the same annual average was maintained, and for the twenty years we find a gross product of 7,636,122,500 pieces; halving this yearly average for the period of ten years, from 1850 to 1860, and we may assume a gross production for that period of 191,000,000 per year, or a total of 1,910,000,000, and by this process arrive at an approximate estimate of 22,527,532,468 pieces of lath, equivalent to 2,252,753,246 feet of logs, as the lath production of Wisconsin, Minnesota and the Mississippi river during the forty-seven years from 1850 to 1897, an estimate which, taking all known facts into consideration, need not be looked upon as over, but rather understated.

HEMLOCK.

But little consideration has been given in these pages to the production of hemlock and hardwoods, which have never been thought of sufficient importance to be statistically stated, until of very recent years. Hemlock, which, in coarser uses, such as framing, planking and dock building, possesses a characteristic value, second only, if indeed second, to pine, was utterly neglected up to a very recent date, the prejudice of mill men in its sawing and of builders in its consumption, causing it to be looked upon as a pariah of the forest, which it was unworthy of a lumberman's efforts to utilize for any purpose beyond the value of its bark for tanners' use. About 1884, however, some of the Michigan lumbermen, whose supply of pine timber approached exhaustion, began, most timidly, to saw a little hemlock, hoping thereby to extend the life of their mills. It was up-hill work, however, and many of those who first essayed its production allowed their mills to go out of commission rather than lose money in combating the popular prejudice. It cost fully as much to log, no less, if indeed not more to saw, and the same or more to ship, while the value in the market was fully one-third less than that of pine of the same sizes and adaptations. With the decadence of the pine supply, the mills in all portions of the northwest, where ample resources had not been secured, gradually turned their attention to "cutting clean," in lumbering their lands, and the hemlock and hardwood manufacture has grown apace, until statisticians have been forced to give each due recognition in their annual compilations of lumber cut. Up to the present time the hemlock production, and in the main the hardwood production, was included without distinction in all of the statistical tables of Michigan production, and it was not until 1894 that statisticians essayed to compile the hardwood manufacture of Wisconsin and Minnesota, in contradistinction from pine, and these statisticians did not give hemlock consideration until 1897.

The Mississippi Valley Lumberman of Minneapolis, in February, 1895, in connection with its annual statistics of lumber production, gave recognition to the rapid growth of hardwood manufacture in a separate compilation of its statistics, the results of which for the years named we here append.

HARDWOOD PRODUCTION IN THE NORTHWEST.

	1894.	1895.	1896.	1897.
Above Minneapolis	20,496,000	8,298,000	....	7,100,000
Below Minneapolis	12,982,000	5,136,000	7,777,000	7,000,000
Miscellane's Minnesota.	8,391,000	6,649,000	16,845,000	18,365,000
Southern Wisconsin	10,235,000	10,250,000	11,008,000	10,370,000
East Central Wisconsin.	5,445,000	7,970,000	4,220,000	6,975,000
Ashland B'ch C. & N.W.	78,375,000	74,464,000	65,247,000	61,113,000
Wisconsin Central R. R.	31,671,000	47,557,000	66,396,000	84,515,000
Wisconsin Valley R. R.	55,481,000	32,973,000	49,098,000	60,630,000
Minn. & S. Ste. M. R. R.	22,900,000	21,402,000	20,180,000	7,163,000
C., St. P., M. & O. R. R.	32,785,000	21,192,000	....	....
St. Paul & Duluth R. R.	6,130,000	....	....	....
Miscellaneous Wiscon.	....	....	....	2,741,000
Total Western Dist.	305,966,000	236,888,000	258,013,000	265,756,000

Green Bay Shore	....	....	3,962,000	12,127,000
Manistee	....	....	1,150,000	5,257,000
Ludington	....	....	3,704,000	4,708,000
Muskegon	....	....	2,000,000	2,686,000
Chicago and L. Superior	....	....	11,069,000	37,066,000
Total Chicago District	....	....	21,575,000	61,844,000
Chicago & W. Mich. R.R.	....	....	3,263,000	7,679,000
G. Rapids & Ind. R. R.	....	....	5,675,000	20,350,000
F. & P. Marquette R.R.	....	....	3,730,000	5,415,000
Detroit, L. & N. R. R.	....	....	1,850,000	5,390,000
Mack. Div. M. C. R. R.	....	....	2,884,000	720,000
Miscellaneous Michigan	....	....	45,106,000	50,926,000
Saginaw Valley	....	....	10,000,000	12,930,000
Huron Shore	....	....	4,868,000	13,368,000
Total Michigan Mills.	....	....	107,378,000	116,778,000
Grand Total	305,995,000	236,888,000	357,266,000	464,380,000

NORTHERN HEMLOCK PRODUCTION, 1897.

	1897.
Below Minneapolis	7,750,000
Chicago, St. Paul, Minneapolis & Omaha	18,840,000
Wisconsin Central Ry	24,350,000
Wisconsin Valley Ry	23,641,000
Minneapolis & Sault Ste. Marie	2,627,000
Chicago & Northwestern (Ashland branch)	18,970,000
East Central Wisconsin	9,925,000
Miscellaneous Wisconsin	2,950,000
Total west of Chicago district	109,053,000
Green Bay Shore	23,800,000
Cheboygan	6,618,000
Manistee	87,053,000
Ludington	7,596,000
Muskegon	18,600,000
Miscellaneous mills, Chicago and Lake Superior district	55,679,000
Total Chicago district	199,346,000
Chicago & West Michigan Ry	7,977,000
Grand Rapids & Indiana Ry	26,571,000
Detroit, Lansing & Northern Ry	19,100,000
Flint & Pere Marquette Ry	7,085,000
Michigan Central Ry	22,620,000
Saginaw Valley mills	3,262,000
Huron Shore mills	23,168,000
Miscellaneous Michigan	44,048,000
Total	153,831,000
Grand total hemlock	462,230,000

From the above table it will be seen that, so far as statistics were received, the hemlock production has now reached in the neighborhood of a half billion feet, or from eight to ten per cent of the pine production for 1897, and it is inevitable that the volume shall increase to far greater proportions with each succeeding year. Of the quantity stated, fully three-fifths was produced from the forests of Michigan. While these figures must be taken only as approximate, relating as they do only to mills located in the districts in which pine manufacture has entered upon or reached its decadence, and of these, scarcely to be considered as embracing the entire manufacture, many mills not reporting at all; no account is taken of the scores of small mills which are to be found in all parts of southern Michigan, as well as in Wisconsin and Minnesota, in districts where hardwood alone has been manufactured for a half-century. The figures, however, are eloquent as showing the changed conditions of the lumber supply in the more northerly forests, where pine has reigned supreme, and is now being supplanted by its once despised competitors, which, in the near future, are to hold the supremacy in lumber statistics.

As before remarked, no statistics relating wholly to the production of hemlock are available, until, in 1897, when attempt was made by The Northwestern Lumberman of Chicago and The Mississippi Valley Lumberman of Minneapolis, acting conjointly, to ascertain the probable volume of hemlock cut at mills hitherto devoted wholly to the manufacture of pine, and while the results must be accepted as but approximate, they are valuable as indicating the growing value of this once despised timber, the manufacture of which is destined to reach increasing proportions, as the comparatively small volume of pine which now remains shall disappear.

CHAPTER XXXV.—EARLY MINNESOTA.

THE ST. CROIX RIVER.—STILLWATER.—EARLY MILLS AT ST. PAUL AND ST. ANTHONY'S FALLS.—THE FIRST PINE CUT IN 1818 AT RUM RIVER.

THE extended manufacture of lumber was restricted to Michigan and Wisconsin, practically until 1875 or 1880, although mills were built and lumber manufactured at many points in Minnesota and upon the banks of the Mississippi river at an early date. In Minnesota the manufacture was confined to local use, including in that term the near-by surrounding territory, in which distribution of the product could be made by team to the settlers who were by that time crowding its fertile prairies. Where mills were located upon floatable waters, and rafts could be run to more distant points, the work of the mills was more extended, and the business flourished, hampered, as in such cases it was, by the competition of other manufacturing points seeking the same markets. Until the era of railroads, but little inducement was held out for the owners of timber lands to expand their operations, and, until 1880, Minnesota held a subordinate position in the lumber manufacture of the northwest, except such operations as were conducted upon the St. Croix and Upper Mississippi waters. In 1876, however, the territory included in the term "North Mississippi district" reported a manufacture of 244,800,000 feet of lumber, 105,000,000 shingles and 50,000,000 lath, while the St. Croix district reported 281,750,000 feet of lumber, and the Duluth district 27,750,000 feet, a total for the three districts of 554,300,000 feet, the valuation of which was placed at $10,000,000. Earlier statistics placed the production of 1860 at a value of $1,405,303, no statistics of quantity being available, and this in 1865 had increased to a valuation of $3,187,429, and in 1870 to $5,058,158, the figures being taken from a report issued in 1878 by the "Board of Immigration for the State of Minnesota."

Andreas' "Historical Minnesota," published in 1874, states the production of sixteen mills at Minneapolis, in 1873, to have been 190,000,000 feet of lumber, 115,000,000 shingles and 30,000,000 lath, of an aggregate value of $4,000,000. Stillwater is set down as having eleven mills, producing 74,063,976 feet of lumber, 19,200,000 shingles and 19,477,850 lath. The mills at Minneapolis are not enumerated, but those at Stillwater are named as follows, viz: Schulenberg & Boeckeller; Seymour, Sabin & Co.; St. Croix Mills (Isaac Staples); McKusick, Anderson & Co.; Northwestern (Hersey, Bean & Brown); St. Croix Lumber Company, "Steam, Saw and Planing;" J. M. Keller; Gastlin & Castle. The cut of these mills is stated at 800,000 feet per day; men employed, 1,500; capital invested, $3,000,000.

The mills at this point rafted their lumber to points on the Mississippi river, upon the waters of the Mississippi and St. Croix rivers, and these were the principal producing streams in the State up to that date, their history being more fully treated in another portion of this work. The production upon the St. Croix has never been confined to the mills upon its banks, the rafting of logs down the river to supply the mills at various points on the Mississippi river having comprised as large or larger volumes each year than was cut at the home mills.

Historians of a comparatively early date give us an insight into conditions prevailing in the early settlement of the State.

In Parker's Hand-Book of Minnesota, 1856, we find the following mention of, the lumber business of that day:

> "The Sauk Rapids and Stillwater districts comprise all the lands east of the Mississippi in Minnesota, but by the provisions of the act of 1854, creating new land districts in Minnesota, the Sauk Rapids district was extended west of the Mississippi, taking in five townships fronting on the river, and running west to the 'drift wood' and the Red River of the North. * * * * In this district there are saw mills that saw an entire log by once running through, and so arranged that one log follows another continuously, without loss of time. At one of the mills, a circular saw for making flooring and fencing, cuts both ways; that is, as the carriage moves one way, the saw cuts in its downward motion, and as it returns, the saw cuts on the opposite side in its upward motion. (Note: This method of sawing never found wide approval, and was but an experiment, which was condemned as unsafe and inexpedient. Editor.) Besides these, we have machines for planing flooring and siding, making shingles, lath, doors, sash, wagons, sleighs, etc., to which I may add the large and increasing business of logging in the pineries. It has been estimated that 100,000,000 feet of pine lumber in the log was put into the different streams in this district within the present year, which, at $10 per thousand feet, the estimated value amounts to $1,000,000. Interspersed through the entire pine country are excellent lands for agriculture, in good production, so that the $1,000,000 annual resources from the pine is so much in addition to the resources of an exclusively agricultural district, and harmonizes well as a basis for a home market."

Speaking of the Sauk Rapids district, he says:

> "Lying upon the Mississippi, there are in this district immense pineries, commencing at the mouth of Crow Wing river, and extending more than fifty miles northward along the bank of the

Mississippi and many miles back. Beside this vast pinery, much valuable pine land is found on Rum, Platte and Long Prairie rivers. Eight saw mills are in operation within the district (1855). * * * Of the area of the pine region of Minnesota there is no reliable data accessible; but that the lumbering business is one of the most important and profitable to the territory, none can question who will examine the statistics. An estimate was made last spring by a gentleman well versed in the affairs of the pineries, of the number of feet of logs that would probably be floated down from the pineries during the last spring. His estimates were: From Rum river, 120,000,000 feet; from the Mississippi, 40,000,000; the St. Croix, 160,000,000; Chippewa, 75,000,000." Quoting from The Prescott Transcript of June, 1856, the writer adds: "* * * * Twenty-six rafts of logs have been floated out of the St. Croix within the past week. These rafts, we are informed by a reliable lumberman, will make from twelve to fifteen hundred thousand feet of lumber each, making in all over 30,000,000 feet, or $600,000 worth. The estimate of 150,000,000 feet for the St. Croix, this season, may be safely multiplied by two; there is more lumber floating this season than in any one of the past four years."

To this another local paper responds, saying:

> "We presume every word of the above is strictly true. Rafts are leaving Stillwater for the southern market almost every day, and as soon as they leave, others float down from the boom and take their places; from $75,000 to $125,000 worth of logs may be seen any day in the lake opposite Stillwater, and this has been true for the four or five weeks just past. The amount of capital invested here in the lumber business amounts to nearly two millions of dollars."

The Minnesotian, about the same time, had an article upon Stillwater, in which it was averred:

> "Stillwater, it is well known, is the headquarters of the lumber trade of the St. Croix, and as that trade has extended this year to more than twice its former figure, of course Stillwater prospers accordingly. Since the opening of navigation pine logs and lumber have been measured by the acre at the bend of Lake St. Croix and on the river above. Three or four thousand men have found constant employment in getting the logs ready for market and transporting them thereto. The amount of lumber produced on the St. Croix, which has been and will be sent out this season, is over 200,000,000 feet. Logs still bring a very high price below, and of course this business is bound to go on increasing from year to year."

Continuing, the author says: "Stillwater has now (1856) four extensive saw mills—the old McKusick mills, driven by water-power; Sawyer & Heaton's; Hersey, Staples & Co.'s, and Schulenberg's steam mills. The two latter are considered the best mills in the territory, the Hersey-Staples mill being the more extensive of the two. It is perhaps the finest working mill in the west, and is in all its departments as near perfection as machinery can be brought by human skill. It works three upright saws and a gang; also flooring and siding circular saws, and lath machines. Everything about the mill is done by machinery, even to the filing of the saws, the handling and shifting of the lumber, and the removal of slabs. This mill is capable of cutting 125,000 feet in twenty-four hours."

Such was the extent of lumbering on the St. Croix in 1856, and such was the estimate of "a first-class mill" forty years ago, and for that day, it was entitled to the appellation; but, as compared with the first-class mill of to-day, it seems like irony to speak of it in that category. It was but a few years later that upright saws, both gate and mulay, disappeared entirely, except it might possibly be in some remote country mill, and even in them the circular displaced the upright, and in later years has given way to the band mill, now far more frequently found. The first-class mill of a half-century ago knew nothing of a circular which would cut more lumber in a day than the three uprights, described above, could do in a week. Gangs were a rarity, while double edgers were unknown up to fully ten years later than the date described in the above account. The steam nigger, steam feed, log rollers, live rolls, trimmers, slashers, "hogs," and band mills were as yet unthought of, while all are now accessories of a well-conducted saw mill.

Recurring again to Parker's Hand-Book, we find a chapter relating to St. Paul.

> "* * * * The town was surveyed in 1845, and as late as the spring of 1847 there was but three white families, consisting of ten persons; ten years later its population was 10,000. * * * Of manufactories, there is one mill with machinery driven by an engine of seventy horse-power, capable of turning out 32,000 feet of lumber, 20,000 shingles, 16,000 lath, and of planing, tongueing and grooving 12,000 feet of flooring every day. Beside this, there are four other mills of less capacity, producing from five to ten thousand feet per day; there is also one door, sash and blind factory."

At Shakopee, in Scott county, the author speaks of "saw mills to manufacture lumber;" of a saw mill at Mount Pleasant, which was "but just laid out," as a village; of two saw mills at Jordan City, and one at Belle Plaine, together with a steam saw mill at Henderson, in Dibley county, and two at Le Suer, the county seat of Le Suer county. A large steam mill was in course of erection at Mankato, and one was in operation at Winona. Speaking of Minneapolis, the writer says:

> "From 1849 may be dated the commencement of St. Anthony, although one cabin had stood here for twelve years previous. The present (1856) population is 3,500; the lumbering business is at present the great manufacturing interest. Eight saws are in constant operation, capable of manufacturing 12,000,000 feet of lumber per annum, in addition to which another gang of saws has recently been put in operation which will probably cut 5,000,000 feet; this mill is located on the dam

leading from the main shore to Hennepin Island. To this dam are sixteen apertures for mills, nine of which are now occupied. It is expected that more mills will be erected next season, and all the apertures will be filled at as early a day as possible; 10,000,000 feet of logs can be packed in the dam, which the proprietors will enlarge next season, by extending it out into the river from the upper end of Hennepin Island, so as to increase the water power and add storage for some five million feet more logs. In addition to the above, is a shingle and lath machine, which saws 13,000 shingles and 20,000 lath per day." At Anoka Mr. Parker speaks of a dam, with saw and grist mills, which have been built at a cost of $30,000; and of Monticello with its steam saw mills. At Little Falls, three miles above Swan river, a saw mill is mentioned as having been built in 1852 by officers of the army (assumedly from Fort Ripley); in this neighborhood "are the first pine trees seen on the Mississippi."

Of Stillwater it says:

"It was first settled in 1843, it is situated one mile below the mouth of St. Croix river, and at the head of low water (for large steamers) navigation. It is twenty-five miles above the mouth of the lake, twenty-five below Taylor's Falls, twenty-five east of St. Anthony's Falls, 150 southwest of the head of Lake Superior, etc., etc. It is the center of a rich farming country, and the point from which the greater portion of the supplies for the extensive pineries on the St. Croix and its tributaries are drawn by teams or carried by boats. The pineries proper are from fifty to one hundred miles north. (Mention has already been made of the mills at Stillwater at this date.) At Arcola, seven miles above Stillwater, three mills are mentioned, and the value of the lumber business at Marine Mills, six miles farther up, with its one mill, is estimated to be $40,000; this settlement is stated as having been made in 1838 by members of the Marine Lumber Company. At Taylor's Falls, with a population of 300, the first settlement on the Minnesota side of the St. Croix was made in 1837 by the 'Northwestern Lumber Company.' Near Sunrise, seventeen miles above Taylor's Falls, is the first tract of white pine that is visible in ascending the St. Croix."

From Bond's History of Minnesota and Its Resources (1853) we take the following excerpt relating to St. Paul:

"Lumber to the extent of $40,000 in value, manufactured at other places, has been disposed of at this point during the past year. * * * * Included in the manufacturing capital of the city, are three steam saw mills, with an investment in machinery and stock of $100,000; one planing mill, with sash, door and blind factory, $10,000. * * * Some of our manufactures are quite extensive, particularly our saw mills. * * * * * The lower mill, owned by Messrs. Oakes & Co., is a model of its kind. * * * * It now runs two upright saws, one circular, one cross-cut circular, and three lath saws; a shingle saw and planing machine will be attached upon the opening of navigation; there is a turning lathe attached; this mill is capable of cutting 20,000 feet of lumber and 10,000 lath in twenty-four hours. The mill near the upper landing runs one upright and one circular saw, and turns out 10,000 feet in twenty-four hours. In the same neighborhood is the mill of John R. Irwin, with the same number and character of saws, and with shingle and lath mill; it does about an equal amount of business in the way of making lumber. A fourth mill is in process of erection at Dayton's Bluff by Messrs. Ames & Co. Next in importance is the sash and blind factory of Wise & Gise on the second bench, near the Catholic church; they have all the late improvements in this branch of manufacture, and, with planing mill attached, they convert rough pine boards into beautiful, substantial doors, sash and blinds with remarkable rapidity and, of course, at much cheaper rates than these articles can be made by hand."

Speaking of St. Anthony's Falls, this writer says:

"A. Godfrey, Esq., has the honor of having commenced the first improvement of the water power of the falls. Under his superintendence, in the fall of 1847, the dam and saw mills, owned by the St. Anthony Mill Company, were begun, and the first saw put in operation in August, 1848. Its lumber sold quickly at $12 for clear and $10 for common. Others were completed soon after, making eight saws now (1853) running, of an average capacity of 6,000 feet each per day."

Referring again to Stillwater, the author says:

"Stillwater was first settled October 10, 1843, by John McKusick, formerly from Maine, Elam Ginly from Maine, Calvin F. Leach from Vermont, and Elias McKean from Pennsylvania, proprietors of the Stillwater Lumber Company, who selected this point, on account of its valuable water power, for the erection of a saw mill, which was put in operation early in the spring of 1844, and from this time the town grew in importance. * * * In 1846 Martin Mower and W. H. C. Folsom from Maine, with Joseph Brewster from New York, erected a saw mill at Arcola. The settlement of Marine Mills was commenced in 1838 by Samuel Burkles, formerly of Delaware, Orange Walker from Vermont, and others forming the Marine Lumber Company, who erected a mill at this point."

In McClurg's "Minnesota As It Is," 1870, it is stated:

"North of latitude 46 degrees and east of Red Lake are the vast pineries of Minnesota, covering an area of 21,000 square miles, and varying in density from groves and scattering trees to dense forests. While pine is the prevailing timber, there is an intermingling of birch, maple, aspen, ash and elm; the alluvial bottoms of the Northern Mississippi and its tributaries supporting a heavy growth of basswood, elm, aspen, butternut, ash, birch, hard and soft maple, linden, balsam firs, and oaks. Geologists, surveyors and others who have explored the entire northern district, bear

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uniform testimony to the fact that wherever the prairie fires have destroyed the pine, the hardwoods grew up in its place. The most dense and valuable pineries extend from the eastern part of Pine county northwestward upon the head waters of Kettle, Snake, Rum, Crow Wing, the Upper Mississippi and Otter Tail rivers."

The writers of that early day looked upon the agricultural resources of the State as of vastly more importance than those of the forest, and mention of saw mills and lumbering is made only in an incidental manner. Thus we find mention by McClurg, that the governor's message (1869) states the log and lumber product of the State at 249,889,558 feet for the year 1868, the value being given at $3,750,000: of this quantity more than half was in logs, which went out of the State. The average of $15 per thousand seems high, however, even in view of the abnormally prosperous times realized in that year. In contrast with these figures, it may be stated that the commissioner of statistics placed the product of manufactured pine lumber for 1861 at 69,950,000 feet, and the logs surveyed at 92,590,528 feet. In 1868 the lumber was stated at 121,000,000 feet, and the logs at 128,000,000 feet.

A correspondent of a Milwaukee journal of that year (1861) says: "One billion feet of timber has already been cut from the St. Croix pineries, and old land explorers vary in their estimates of the pine remaining, at from three to eight times the amount already cut. A mean estimate would bring it to five and a half billion feet."

From the Governor's report for 1870 we learn that there was 305,146,984 feet of logs scaled in the State during 1869, an increase of 54,897,066 feet over the figures of the preceding year, this including only the log scale upon the leading streams, and not including a vast amount of logs made into lumber at mills which had no occasion to call for the aid of the surveyor-general, and for which we find no data; in fact, Minnesota was not alone at this time in looking upon its timber interests as a side issue, not to be compared in value to the agricultural and mining interests, and while grain, hops, general merchandise, minerals, steamboats, railroads, game and birds, of far less importance to the prosperity of each state, were fully considered in all statistical computations, it is a rare thing to find in the writings of the dates previous to 1871-2 anything indicating the importance of the lumber trade of the various sections of the State.

In a supplement to his history, McClurg, in a digest of the resources of the State, includes, among those of Anoka county, three saw mills, one planing, sash and door factory at Anoka, with shipment of 6,000,000 feet in 1868; one saw mill at Centerville, and one at St. Francis; at Vernon Center, Blue Earth county, one saw mill; South Bend, two saw mills; Winnebago Agency, two steam saw mills; at Winfield, one steam saw mill; at Shelbyville, one water and two steam mills; Benton county, one steam mill at Watob; Brown county, New Ulm, two steam mills; Carver county, Waconia, one saw mill; Watertown, two mills; Chisago county, Taylor's Falls, one mill; Franconia, one mill; Sunrise, one mill; Dacota county, Hastings, three saw mills; Douglas county, Alexandria, one steam mill; Freeborn county, Albert Lea, five steam mills; Faribault county, five saw mills; Hennepin county, Minneapolis, fourteen mills (value of product $1,165,077); six sash, door and blind manufactories; Houston county, five mills, at Caledonia and Hokah; Isanti county, one mill; Jackson county, two mills, at Jackson. Lake county, containing 4,000 square miles, of which it has 100 miles frontage on Lake Superior, is named as having one mill at Ottawa, two at Cleveland, two at Waterville, two at Elysian, two at Kasota, one at Cardova, one at Lexington, one at Oval. In Martin county, three mills; in McLeod county, six or eight mills; in Meeker county, three mills; Mille Lac county is credited with two saw mills and an annual log cut of from 50,000,000 to 100,000,000 feet; Mower county is credited with eight mills; Rice county, two; Sherburne county, one mill; Sibley county, two mills; Stearns county, St. Cloud, two steam mills; Washington county, Stillwater is credited with an export of 46,000,000 feet of lumber and 89,000,000 feet of logs, with 15,000,000 feet in boom. Logs are valued at $12, and lumber at $15; the total value for the year being $1,668,000.

In this year (1868) 225 rafts left Stillwater for points on the Mississippi river. The tub, bucket and barrel works of the penitentiary produced $50,000 worth of goods in that year. Winona is credited with two mills whose product is placed at a value of $600,000; Rockford, in Wright county, is credited with two mills doing a business of $18,000 per year.

The first pine cut in the State was in 1818, at Rum river, and was used in the construction of Fort Snelling. The fort being sufficiently advanced for occupancy by 1822, a saw mill was built under supervision of the officers of the fort, at the falls of St. Anthony, near Minneapolis. In 1838 a party of lumbermen who were operating on Snake river, in anticipation of the ratification of the treaty of 1837, were attacked by a band of Ojibways and fled down the St. Croix in their canoes; a few miles below the falls they were met by the first steamboat that had ever ascended the St. Croix, and from her learned of the ratification of the treaty; this led to their return and a resumption of their logging operations, in which they were no longer molested. Joseph R. Brown, long a citizen of Chau Wakan, on the west side of Grey Cloud Island, in 1838 rafted the first timber down the St. Croix river. In 1844 B. Gervias moved to a point five miles northeast of St. Paul, known as Little Canada, and erected the first mill in Minnesota outside the military reservation. (Neill's History.)

In Seymour's Travels in Minnesota, published in 1850, we find the following relative to St. Croix village:

> "The St. Croix river at the falls forces its way through a bed of greenstone, which varies in height from 50 to 100 feet; the falls or rapids have a descent of probably fifty feet in 300 yards, a series of rapids extend at short intervals several

miles above. The town is situated on the east or Wisconsin side of the St. Croix river, fifty-nine miles above its mouth. There are about twenty-five families here, living in as many dwellings; there are three large boarding houses thronged with young men who labor in the mills; six saw mills (or, rather, one mill with six saws); the mills are the oldest on the St. Croix river and were erected about ten years ago (1840); a dam is constructed across the river to produce about ten feet head of water; one rotary saw for sawing logs (probably a 'siding' saw), and five vertical saws are kept running night and day, beside several rotary saws for sawing lath. These mills, like the others on the St. Croix, are provided with railroads (log jacks), inclined planes, etc., for elevating logs, removing lumber, refuse, etc.; the slabs are sawed into lath; a gang of three rotary saws, which saw three pieces of lath at once, furnish constant employment to some seven or eight men; several men are constantly employed in constructing rafts of the sawed lumber; about thirty men are required to form a full set of hands; these are relieved at midnight by another set, who work until midday, thus about sixty hands are required to keep the mills in constant operation. The following estimate of the amount of lumber manufactured on the St. Croix was made by Mr. McKusick of the Stillwater mills, and probably falls below the actual amount sawed, as Mr. McKusick appeared more inclined to underrate than otherwise: St. Croix Falls, Wis., six saws, 4,000,000; Osceola, Wis., seven miles below falls, two saws, 1,800,000; Marine Mills, Minn., two saws, 1,500,000; Arcola, Minn., four miles above Stillwater, one saw, 700,000; Stillwater, Minn., two saws, 1,800,000; a total of 9,800,000 feet, or, in round numbers, 10,000,000 feet, worth about $9 per thousand at the mills, with about 7,000,000 lath, worth $1.88 per thousand. Beside, at the lowest estimate, six or seven million feet of logs were rafted down the river, the value of the whole being not far from $125,000; others have rated the annual amount of sawed lumber at 12,000,000 feet; all the tributaries of the St. Croix abound in pine. * * * Mr. Folsom of St. Croix Falls estimates the amount of logs obtained on the tributaries of the St. Croix last winter (1849-50) as follows: On the Snake, 16,000 logs; on the Clam, 5,500 logs; on Rush river and lake, 2,500 logs; on Sunrise river, 3,000 logs; on Apple river, 3,000 logs; on the Upper St. Croix (eighty-five miles), 2,500 logs; on Wood lake, 5,000 logs; total, 37,500 logs, averaging, by St. Louis scale, 490 feet to the log, yielding, in round numbers, 18,000,000 feet of lumber.

"The St. Croix is a good stream for driving logs, as they can usually be driven in the spring or fall; there is generally no pine on the immediate banks of any of the tributaries; it is mostly obtained from half a mile to two miles from the rivers. The trees average three logs of sixteen feet each.

"This business," he goes on to state, "unless prosecuted with a good deal of system, proves unprofitable to those engaged in it. Ten laborers make a full complement of hands to form a 'gang;' two choppers who cut down the trees; one barker, or 'rosser,' who strips off the bark from one end of the log so that it may slide more freely on the ground; he also cuts the branches and underbrush; one sled tender, who helps to load, and also aids in cutting the limbs; one teamster, with an ox team for hauling the trees to the river; one swamper, or road breaker, who is constantly employed in keeping the roads open; two sawyers, who saw off the logs to proper length; one cook, and one extra hand. In this way business goes on like clock-work, each being confined to his own department. Two things most essential to success are a heavy, well-trained team, and a good driver." (When in later years ox teams were almost wholly superseded by horses, teams of which were often valued as high as $800 and $1,000, it was more than ever essential that the driver should be a man of good judgment, both in the care of his team and in methods of lumbering. Editor.) "The wages paid at this time (1850) range from $26 to experienced hands, to $20 for those less proficient."

It may here be noted that previous to 1885-90 the term "lumbering" as used in Michigan, Wisconsin and Minnesota, applied almost exclusively to work in the forests of white pine (pinus strobus), comparatively little hardwood being manufactured in those states, even norway or yellow pine (pinus resinosa), being but lightly esteemed, and altogether avoided in most sections until about 1875, after which time it began to assume a hitherto unknown value, as the white pine became less plentiful. The timber of the St. Croix was principally white pine, interspersed with norway to an extent, except upon the Namekagon river, a branch of the St. Croix, where a much larger proportion of norway was found. The early mills of the St. Croix river were in nearly every instance operated by water-power, a majority using an overshot water-wheel, driven from dams, usually at rapids where nature had performed much of the preliminary work requisite to stability.

With this record of the early lumbering upon the St. Croix river, we skip over a few years to learn that with a steady development there were in 1874 nine mills at Stillwater with a manufacturing capacity estimated at 82,000,000 feet per year, operating seven gangs, nine circulars and one mulay saw, and employing 560 men; the manufacture of that year being 49,000,000 feet of lumber and 19,000,000 shingles, as recorded in the earliest statistical records, the operators being: Schulenburg, Boeckeler & Co. (mill built 1855); Seymour, Sabin & Co. (1873); Hersey, Bean & Brown (1854); Isaac Staples (1872); St. Croix Lumber Co. (mill rebuilt in 1872); and McKusick, Anderson & Co. (date not given). In 1875 Gustin & Co. Walker, Judd & Veasie, and Spencer Bros. & Co. are added to the list, and the reported production of that year was 67,000,000 feet of lumber and 41,000,000 shingles. The records for 1880 state the annual log product of the St. Croix at from 175,000,000 to 200,000,000 feet, of which about one-half is credited to the mills for local manufacture, and the balance is put down as sold to manufacturers at mills on the Mississippi river. The mill cut for that year is stated at 111,380,000 feet of lumber and 52,958,000 shingles, the record including, with the mills previously mentioned, that of C. N. Nelson & Co. at Stillwater, 14,000,000 feet, and the same company at Lakeland Mills (a few miles below), 11,450,000 feet; also Ellison & Co., South Stillwater, 7,380,000 feet. Skipping to the records for 1892, the cut of the St. Croix is put down at 198,860,000 feet of lumber and 87,839,000 shingles, and the operators are named as follows, viz: Hershey Lumber Co.; Hersey & Bean Lumber Co.; Schulenburg & Boeckeler Lumber Co.; George Atwood; David Tozer; East Side Lumber Co., Houlton, Wis.; R. W. Turnbull, Oak Park; Stillwater Lumber Co.; St. Croix Lumber Co.; Fall & McCoy, Lakeland; M. Chambers; Hudson Saw Mill Co., Hudson, Wis.; J. S. & John O'Brien Marine Mills; F. Pennington, Glenmont, Wis. For 1897 the cut of the St. Croix is placed at 210,060,000 feet of lumber, 49,361,000 shingles and 46,550,000 lath. Summing up the production of the St. Croix river from the earliest period at which records are available, we find a reported aggregate since 1874 of 3,395,204,688 feet of lumber and 1,297,985,000 shingles, which, reduced to logs, gives an aggregate of 3,557,452,788 feet, and adding the moderate estimate of ten per cent for non-reported, and lumber cut previous to 1874, and we have a grand aggregate of practically 4,000,000,000 feet of sawed lumber as the product of the St. Croix river mills. If now we assume, as is practically correct, no doubt, that one-half the log cut of the river is sent in the log to the mills of the Mississippi river, and we may safely set down the total product of the St. Croix at no less than 8,000,000,000 feet.

In corroboration of these figures, we are indebted to Samuel McClure, Esq., secretary of the St. Croix Boom Association, for the statement that between 1875 (no record being available for the previous period) and 1896, there was rafted out of the boom of that company 42,856,409 logs, raft scale being 5,826,686,620 feet, which is fully fifteen per cent less than mill scale, which, added, brings the figures to 6,700,000,000, leaving but 1,300,000,000 feet for the quarter-century previous to 1875, including the important factor of "unreported" from year to year. If the writer in 1861, heretofore quoted as setting down the production of timber to that time as 1,000,000,000 feet, was approximately correct in his estimates, we shall be perfectly safe in assuming the total log cut of the St. Croix to the present time to have been no less than 8,000,000,000 feet.

Isaac Staples.—This well-known lumberman of Stillwater, Minn., was born of English ancestors at Topsham, Maine. September 25, 1816, and during the winter seasons attended the common schools until he was sixteen years of age, after which he worked for one year in the logging camps of his native state.

At the age of eighteen he bargained with his father, Rev. Winslow Staples, for his time until he was twenty-one, agreeing to pay the sum of $300 when he became of age. He was possessed of extraordinary physical strength and endurance, with good judgment, and was successful from the outset. At the age of nineteen, he began working on the Penobscot boom and learned the logging and lumber business thoroughly, through hard practical experience. At the time he became "his own man" his savings amounted to between $500 and $600, and as his father lacked $60 to pay for his home, young Staples gave him $360. He soon after engaged in the mercantile business at Oldtown, Me., and two years later entered into partnership with his brother under the name of I. & W. Staples, and a successful business was done by them until 1854, when they dissolved partnership. The year previous Mr. Staples had made a trip to Minnesota and, authorized by Eastern capital, entered and purchased large tracts of pine land on the St. Croix river and its tributaries, and within seven years he and the companies he represented, had purchased 200,000 acres of pine forest which had been undisturbed except by the habitations of the red man and wild animals. The firm took the name of Daniel F. Hersey, Staples & Co. and a large mill was erected at Stillwater at the head of navigation on the St. Croix river and lake, the long, narrow and deep St. Croix lake forming a magnificent waterway. This company cut from ten to fifteen million feet of lumber annually and extensively engaged in the mercantile business at Stillwater. In April, 1861, the firm became Hersey, Staples & Hall and continued thus until October, 1866, when Mr. Hall withdrew and the firm of Hersey, Staples & Bean was formed. Thirty million feet of logs then became the output, but in 1875 the firm dissolved, each partner taking one-third of the land which had been accumulated, Mr. Staples' share amounting to 100,000 acres. From 1870 to 1875 he had been manufacturing lumber on his own account at a mill built by Messrs. Sawyer & Heaton, the capacity of which was about 16,000,000 feet annually, but sold this mill in 1882 to the Northwestern Manufacturing & Lumber Company. In addition to the logs sawed in his own mill Mr. Staples cut as high as 49,000,000 feet which he found market for at mills between Stillwater and St. Louis, and also did a large mercantile business. In 1883 he sold pine lands to the amount of $215,000 and in 1886 his sale of lands aggregated $225,000; in 1887 to $150,000, and in 1889 to $550,000. In 1856 Mr. Staples organized the St. Croix Boom Company for stopping and sorting all logs on the St. Croix, having a capital of $150,000, and for twenty years Mr. Staples was its president.

Besides the immense log and lumber business, Mr. Staples' other interests have also been very extensive, as he built several of the best steamboats on the St. Croix waters and erected a mammoth flouring mill at Stillwater with a capacity of 250 barrels per day. In 1871 Mr. Staples organized the Lumberman's National Bank and has since been its president. This bank has a paid-up capital of $250,000. He also assisted in organizing the Second National Bank of St. Paul, Minn., in 1864, of which he has since been a director, and is also interested in several other banks. In addition to the pine lands purchased at an early date Mr. Staples has been one of the largest owners of farm land in the State, and among the many estates owned and cultivated by him is the

Maple Island farm eleven miles northwest of Stillwater, containing 3,000 acres, together with a grist mill, store and other necessary buildings. It is under a high state of cultivation and stocked with cattle and horses. Another rich farm is situated four miles south of Stillwater, containing 300 acres; as also 171 acres of meadow land near Stillwater, and 210 acres in and adjoining the town. Besides these he has other valuable farms in the vicinity, magnificently improved, and among his herds of cattle may be found well-bred Holsteins, Alderneys, Shorthorns and others. On a 150 acre tract owned by him he has a race track of one mile, with necessary buildings, where he exercises some fifty thoroughbred trotters and runners, for which he has a great admiration. He is the owner of Neptune, who was for years the fastest horse on record. In 1889, Mr. Staples purchased of the Hon. Caleb Cushing the riparian rights of St. Croix falls consisting of the first improved water-power in the west, together with 1,000 town lots laid out in the town of St. Croix Falls and 3,000 acres lying along either side of the river three and one-half miles in length. A 60-foot water-fall is available and this property will, in the near future, be worth millions, as St. Croix Falls promises to be a large city. His own residence and grounds are on a hill overlooking the city, with a view for miles down St. Croix lake. Mr. Staples has always been a Democrat, and in 1849 was Indian agent for the Penobscot Indians living in Oldtown, Me. He was mayor of Stillwater in 1886 but has never held other office, his inclinations not being in that line. He was married in 1837 to Miss Caroline B. Rogers of Oldtown, Me., who died one year later and in 1841 he wedded Miss Olivia J. Pettingill of the same place, by whom he has four sons and four daughters. Although now eighty years of age he is still strong mentally and physically. He has always looked after the comfort of his employes and has helped many to get a start in life. Few men have wielded such influence, and wielded it for good, and his good judgment and integrity have always been unimpeachable. He is kind and cordial in manners and his friends are legion. (Since the above was in type, the historian learns of the death of Mr. Staples at his home in Stillwater, on June 26, 1898, at the ripe age of eighty-two years.)

David Tozer.—The St. Croix river of Minnesota, which with its branches extends over a large area of Eastern Minnesota, and Northwestern Wisconsin, forming the boundary line between these great states, has been one of the largest sources of lumber production which for many years has existed in the northwest, its annual cut averaging above 200,000,000 feet of lumber, and 50,000,000 each of shingles and lath, beside logs to an equal amount rafted to mills on the Mississippi river. Among the more prominent lumbermen of this section is David Tozer, who has been prominently connected with the business from its earliest development. Mr. Tozer was born in New Brunswick in 1823. His parents were Daniel and Lydia (Rogers) Tozer, who removed in 1830 to Bonaventure on Chaleurs Bay in the Gulf of St. Lawrence, where the father engaged extensively in the manufacture of square timber for the English market, so that the early environments of his son were in an atmosphere redolent of the forest, and of the camp life which has comprised his subsequent experience, and which still occupies his attention, notwithstanding his sun has long since passed its zenith, as is evidenced by the fact that his operations in the winter of 1895-6 were the largest of any year in his long and eventful life. Mr. Tozer removed to Stillwater in 1856, it being at that time but a small hamlet, giving little promise of the beautiful city which it has since become, and here he entered the employ of James Roney, one of the pioneer lumbermen of Stillwater, with whom he remained for three years. In 1860 he formed a partnership with Andrew Schon with whom he followed the logging business for two years, when their partnership was dissolved, Mr. Tozer continuing the business of logging, to the extent of a quantity varying from ten to fifteen millions feet per year, for which he found sale among the manufacturers of the St. Croix river. In 1881-2 he in company with Durant, Wheeler & Co. and Smith Ellison purchased a small mill which had been built some years previous at South Stillwater, by David Gaslin, which they improved and enlarged to a capacity of 100,000 feet per day, the company remaining together for about four years, and upon its dissolution Mr. Tozer purchased the entire interest, and in connection with his two sons, David, Jr. and Frederick, has continued the business to the present time, ranking among the most extensive manufacturers of this section, Mr. David Tozer, Jr. having charge of the manufacture at the mill, his brother Frederick having jurisdiction over the work of the office in connection with the extensive business, of which, being thoroughly practical men, they have been most efficient aids to their father in bringing to its present leading position among the lumber operations of the St. Croix.

During the winter of 1895-6 the firm, of which, notwithstanding his advanced age, Mr. David Tozer, Sr. is by no means a silent partner, but on the contrary, still takes an active part, put in 27,000,000 feet of logs, or 260,000 pieces, averaging about ten logs to the thousand feet. We speak of this by way of contrast, and to show the difference between the days of Mr. Tozer's early experience, when the average stock of the river was composed of logs running three to the thousand feet, in which is shown the change in methods, from the careful selection of only the best of the standing timber, as was the early practice, to the clean cutting of the land, taking all the timber which is sound enough to possess a market value, while it at the same time illustrates not only the rapid depletion of the timber resources of the northwest, (for the same conditions are evident in all sections of the lumber producing regions) but as well the unexampled growth and development of the nation, and especially of the great west, which when Mr. Tozer began his operations, was but little more than a vast wilderness. During his long and eventful life, no man has stood higher in the business community than has David Tozer, the veteran lumberman of Stillwater.

John G. Nelson of Stillwater, Minnesota, was born in Sweden, December 18, 1840, and being bereft of both parents at a tender age, he, in 1854, being but fourteen years old, came to America. He had but little money with which to pay for his passage, and succeeded in making arrangements to act in the capacity of cabin boy upon the ship which brought him, thus literally working his passage. Soon after his arrival he commenced working on a farm near Victoria, in Illinois, where he made the acquaintance of a Mr. Alstrom, who, with his family, was about to emigrate from Illinois to Minnesota, and engaged with him as the driver of one of his teams. Their journey ended at St. Peter, in Nicollet county, where young Nelson remained for two months. Knowing that an uncle resided near Stillwater, he now concluded to visit that place, and while there found employment at Taylor's Falls in the pineries, in which employment he continued until 1865, and having acquired knowledge of lumbering in all the details of logging and driving, he formed a partnership with Alexander Johnson, and the logging firm of Nelson & Johnson, or, as it was better known, "the Swede boys," became a prominent factor in the logging operations of the St. Croix river. This was the first Scandinavian firm upon the St. Croix, and commencing in a small way at first, each succeeding year seeing a constantly increasing business, which continues to the present time. In 1875 Mr. Nelson entered into partnership with William Long in a logging and lumber business separate from that of Nelson & Johnson, and Long & Nelson continued until 1887. Previous, however, to this time, Mr. Nelson, in company with James S. Anderson, erected a saw mill on the east side of St. Croix lake, opposite Stillwater, but in the state of Wisconsin, with daily capacity for sawing 50,000 feet of lumber, and the firm of James S. Anderson & Co. continued until 1885, when Mr. Anderson met his death by an accident in the mill, and three years later Nelson & Johnson purchased the Anderson interest in the mill property, and a corporation was formed known as the "East Side Lumber Company." The firm of Long & Nelson dissolved in 1887, but that of Nelson & Johnson still continues. The saw mill has been modernized and now has capacity for manufacturing 130,000 feet in a day of eleven hours. In 1894 Mr. Nelson's son, Andrew Oscar, became connected with his father, under the firm name of John G. Nelson & Son, in the prosecution of the same line of business which for so long a time has occupied his father's attention. Mr. Nelson is president of the Stillwater Hardware Company, which is the largest dealer in lumberman's hardware and kindred supplies now in Stillwater; he is also a director in the Lumberman's National Bank, and also in the Minnesota Mercantile Company of Stillwater. In 1894 he received from the governor of the State the appointment of surveyor-general for the first lumber district of Minnesota, under which he exercised supervision over the scaling of the 400,000,000 feet of logs which formed the log supply of the district for 1895.

Mr. Nelson was married in 1868 to Miss Johanna S. Eckman of Stillwater (a native of Sweden), and six daughters and two sons have been born to them, of whom the eldest daughter was, in 1895, married to Schuyler Colfax, Jr., of South Bend, Indiana.

Mr. Nelson is a member of the Lutheran church, and of the Masonic fraternity. In politics he is a Republican. He is but another illustration of the inducements which our republic has from its formation extended to the poor or distressed of other lands to use their talents in raising themselves to positions of affluence and usefulness, and to such men as Mr. Nelson our country will always extend the hand of welcome.

William Prescott Allen of St. Paul, Minnesota, was born at Thomaston, Knox county, Maine, in 1843, the son of the Rev. Lorenzo B. and Nancy (Prince) Allen, both of whom were natives of the "Pine Tree" state. The father was a Baptist clergyman, who, in 1857, removed west to Burlington, Iowa, where his son William continued the education commenced in the schools of his native town, by a studious course at the Burlington University. Upon the breaking out of the civil war, the young man, although scarce turned of seventeen years of age, responded to his country's call by enlisting as a private in Company "C," First Iowa Cavalry, and, before the expiration of his term of service, re-enlisted as a veteran, although not yet of age, and received the appointment of second lieutenant of the Sixty-fifth United States colored infantry, and was mustered out with the rank of captain after five and a half years of faithful service. In 1867 Mr. Allen went to Minneapolis and entered the employ of the United States as a United States deputy surveyor, in which occupation he continued for nine years, and in 1876 entered the employ of Mr. Charles N. Nelson and took charge of that gentleman's extensive logging operations on the St. Croix river, in connection with the "Munch" mill at Lakeland, which Mr. Nelson was at this time operating under lease. About this time Mr. Nelson formed a partnership with D. M. Sabin of Stillwater, the new firm purchasing the saw mill of Seymour, Sabin & Co., and, adding labor-saving devices to the machinery, ran it for many years. In the spring of 1877 the saw mill of Schulenberg & Boeckeler, at Stillwater, having burned, Mr. Nelson sawed out their log stock at the Lakeland mill, and the two mill properties, both of which were now refitted in the most modern style, were operated upon a most extensive scale under the management of Mr. Allen. In 1879 the C. N. Nelson Lumber Co. was organized, and proceeded to the erection of a large mill at Cloquet, on the St. Louis river, where the company acquired large tracts of valuable pine lands, warranting the erection of a mill having capacity for sawing 250,000 feet of lumber, with a proportionate production of shingles, per day. C. N. Nelson & Co. having been absorbed in the C. N. Nelson Lumber Co., Mr. Allen removed to Cloquet, and took charge and management of the immense operations which were now inaugurated. In 1889 the Sabin mill at Stillwater was removed to Cloquet, and rebuilt upon a much larger scale, increasing the producing capacity of the company to 400,000 feet of lumber, 200,000 shingles and 60,000 lath per day, or an aggregate of 50,000,000 feet of lumber, 25,000,000 shingles and 8,000,000 lath per annum. In 1887 Mr. M. M. Darr, who had been connected with the company as vice-president, tendered his resignation, and Mr. Allen was elected to that position to fill the vacancy, which position he has held to the present time. In the spring of 1896 the C. N. Nelson Lumber Company sold its mills, together with 600,000,000 feet of standing pine, together with all its interests at Cloquet, to Frederick Weyerhaeuser of St. Paul and F. C. Denkman of Rock Island, and Mr. Allen has since been engaged in settling up the outstanding affairs of the company, with headquarters at St. Paul. When the hamlet of Cloquet was incorporated, Mr. Allen was elected president of the village, an office which he continued to hold for three years. In 1890 he was elected on the Republican ticket to represent the Fifty-third Senatorial district in the state legislature, a position to which he was re-elected in 1894. He is a member of Dalles lodge No. 158, A. F. & A. M., of Cloquet, and of the Duluth Commandery, Knights Templar. He is also a member of Osman Temple, Mystic Shrine, and a past grand in the I. O. O. F. of the Minnesota jurisdiction; he is a Companion of the Loyal Legion, and a member of the Grand Army of the Republic.

Mr. Allen was married in 1873 to Miss Emma Curtis of Minneapolis, one son and one daughter being the fruit of the union. Mrs. Allen died at Cloquet in 1887, and in 1891 Mr. Allen was united to Miss Mary Humphrey of Yarmouth, Maine.

Edward W. Durant.—Few men have held a more prominent position in the lumber circles of the northwest than Edward W. Durant, the veteran lumberman of Stillwater, Minnesota. Mr. Durant was born in the city of Boston, Massachusetts, in 1829, the son of William W. and Susannah L (Marsh) Durant, both families tracing their origin through old continental families to the French Huguenots of the sixteenth century. The father was a merchant in Boston, who, in 1838, removed his family to Ohio, settling temporarily near Cincinnati, whence, one year later, he removed to Illinois and took up his residence, and here his son was accorded the advantages of a private tutor in the attainment of an education. In 1848, at the age of nineteen years, the young man visited Stillwater, and decided upon perfecting himself as a river pilot upon the St. Croix and Upper Mississippi rivers, spending his winters in Illinois, where he had acquired an interest in a general store. Having thus spent several summers upon the Mississippi, on the route between St. Paul and St. Louis, he, in 1852, engaged as a pilot in the towage of logs and lumber rafts from the now rapidly opening lumber district of the St. Croix and the log booms at Stillwater and intermediate points to the rapidly growing city of St. Paul, and this occupation engaged his attention for a period of twenty years, during which time he became interested in the purchase and sale of logs and lumber, forming, as early as 1868, a partnership with Ralph J. Wheeler of Stillwater, which was not discontinued until 1893. The firm of Durant & Wheeler, beginning business in a modest way, as became the limited wants of the country in that early period, rapidly increased its operations, until it became known as one of, if not the leading, lumber houses of the region of the St. Croix, its operations averaging above 20,000,000 feet per year, and running, according to the demands of the seasons, to as high as 75,000,000 feet.

In 1888, in company with David Tozer of Stillwater, and Smith Ellison of Taylor's Falls, Durant & Wheeler organized the South Stillwater Lumber Co., which was, a short time later, incorporated under the laws of Minnesota, and the company purchased the mill at South Stillwater, known as the Gazlin Co. mill, and its operation was continued until a short time subsequent to the dissolution of the firm of Durant & Wheeler, in 1893. After the dissolution, Mr. Durant continued in the business, but in 1894 sold his interest in the South Stillwater Co. mill to his fellow stockholder, David Tozer, but did not, by any means, retire from the business of purchasing logs and lumber, in which he is still engaged.

During his long and energetic business career, Mr. Durant has been an active participant in the politics of his state and the nation, feeling that it is the duty of every good citizen to render such service as may be in his power in the inculcation and forwarding of all such measures as an enlightened judgment should approve. Mr. Durant is a Democrat, and upon that ticket was elected and served four terms as mayor of the city of Stillwater, three terms as a representative in the state legislature, and two terms in the state senate, and was subsequently honored by his party with the nomination of lieutenant-governor of the State on the Democratic ticket. That the party was in a hopeless minority in the State but emphasizes the self-abnegation of Mr. Durant, who cared more for the upholding of the principles in which he had an abiding faith than for any obloquy which might attend defeat. Mr. Durant has frequently been called to preside at congressional and state conventions, his rulings and general management of deliberative bodies being of a marked character, and such as is compatible only with one who, as a student of human nature, knows how to control men. In 1883 Mr. Durant was elected president of an organization known as "The Lumber Manufacturers' Association of the Northwest," organized for the purpose of meeting, so often as might seem advisable, to discuss the subjects which at the time might seem most pertinent to the best interests of the manufacturing branch of the lumber trade, such as a curtailing of production, comparison of stocks on hand, and general prospects affecting the trade at large. Of this association Mr. Durant was the third president, the first having been A. G. Van Schaick of Chicago, who was succeeded by A. A. Carpenter for one year, when Mr. Durant was elected, and served for two years, and until the dissolution of the association, in 1886. George W. Hotchkiss, then secretary of the Lumberman's Exchange of Chicago, was secretary of the organization from its inception. Of the excellent work of Mr. Durant in this capacity, the influence for good exerted over the wholesale and retail lumber trade of the country bears ample evidence.

In the realms of speculative Masonry, Mr. Durant has for many years exercised a potent influence, being a member of Lodge, Chapter and Commandery;

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he is a member of Oman Temple of the Mystic Shrine of St. Paul, Minn., and is a past grand master of the Grand Lodge of Free and Accepted Masons in the Minnesota jurisdiction, and also past grand chancellor of the order of Knights of Pythias in Minnesota, and is a member of the order of Elks.

Mr. Durant was married in 1853 to Miss Henrietta Pase of Albany, Ill., four children, two sons and two daughters, being the issue, of whom two died in infancy, the survivors being Henrietta, born in 1856, and Edward W., born in 1868, both of whom have been given the best educational advantages attainable. Edward, after graduating from the high school at Stillwater, spent two years under the tutorship of Col. McMinn, a noted instructor of Racine, Wisconsin, whence he took a course at the equally celebrated academy at Exeter, New Hampshire, and, after graduation, entered Yale College, from which he graduated at the age of twenty-three years, to take up the business of lumbering, in connection with the purchase and sale of pine lands and logs. The history of Mr. Durant is one of energy, usefulness, and the highest respect of a community which is not confined to the narrow boundaries of the city of his residence.

George W. Welstead now of Stillwater, Minnesota, was born at East Pembrook, Genessee county, New York, in 1857, the son of William and Rhoda (Powers) Welstead. The father was a native of England, while the mother was born in Vermont. When George was but eight years of age his father died, and his mother removed to Kalamazoo, Michigan, where she died in 1869, leaving the subject of our sketch an orphan, thrown upon the doubtful charities of a cold world to look out for himself, and to work out his own destinies at the tender age of twelve years. He fortunately found a farmer who was willing to take him and to pay him ten dollars a month, and he remained with him for one year, when he was employed by Allen A. Sage, a lumberman of Lapeer, Michigan, who was also engaged in merchandising and with whom George remained until he was twenty-two years of age, doing faithful service in the various departments of his employer's extensive business. Having married during this time, and developing a disposition to asthmatic difficulties, he in 1880 removed to Colorado, and finding the climatic conditions favorable, decided to remain, and now found the attention which for several years he had given to the study of mechanical arts to be of the utmost service to him in the business of contractor and builder which he decided to take up, and which occupied his attention, somewhat in connection with mining, until 1884. Returning east to Muskegon, Michigan, he accepted a position of trust and responsibility with the Muskegon Shingle and Lumber Co., which was just starting up its new mill at that point, and remained with this company for eight years. In 1892 he went to Wisconsin where he remained for two years, and then removed to Stillwater and accepted a position with Robert W. Turnbull, operating a large saw mill at Stillwater, and later accepted the responsible position of general manager of the extensive pine lands and lumber operations of the Burlington Lumber Company of Burlington, Iowa, so far as they are located in the region about Stillwater, which place he makes his headquarters, and where he resides. The winter operations of the company, which are under his charge, are located in northern Minnesota and Wisconsin, and are on the extensive scale necessitated by the extended operations of the company at its home mills at Burlington, where an average cut of twenty million feet of lumber and ten million shingles, together with lath and other products of the saw mill, combine to place the company in a leading position among the manufacturers, and discloses the responsibility resting upon their northern representatives, to whom is entrusted the duty of obtaining the log stock requisite for such an output of lumber.

Mr. Welstead was married at Lapeer, Michigan, in 1878, to Miss Emily E. Thompson of that city, who died in 1894. But one child, which died in infancy, was born to the union. Mr. Welstead is high in Masonic circles, being a member of St. Paul Consistory No. I-AA-SR, S. P. R. S. and of the Ancient Arabic Order of the Nobles of the Mystic Shrine; he is also a member of the Elks, and of the Hoo Hoo, and in politics is a firm believer in the democratic doctrine of tariff reform.

Hugh D. Campbell of Stillwater, Minnesota, was a native of Ontario and was born in 1857, the son of Donald Campbell of Glengary county. In the spring of 1879 Hugh went to Chippewa Falls and found employment in the saw mill of Peck & Bernard, which soon after became known as that of "The Chippewa Lumber & Boom Co." As the fall of the year approached he engaged with the logging firm of Nickols & Crandall, and went to their camps, spending the winter in skidding logs. In the spring of 1880 he was engaged by the surveyor-general, D. J. McKinzie of Alma, Wisconsin, as tallyman on the booms at Beef Slough, where the waters of the Chippewa empty into the Mississippi, and where the immense log product of the Chippewa, or so much of it as was destined to the saw mills at more southerly points, was sorted and made into rafts to be towed to the mills of the Mississippi. At the close of the work at Beef Slough, Mr. Campbell found employ of the same character on the lower Chippewa river, and log scaling became his occupation for the succeeding five years, during which time he formed the acquaintance of Mr. Thomas Irvine, who was interested in the Beef Slough Boom Co. and also in the Hershey Lumber Co., whose mill was located on the St. Croix lake about one and a half miles from Stillwater, and through Mr. Irvine's influence found employ with that company, having charge of the log department, a position which he filled with so great satisfaction to the company, that when two years later the position of general manager was vacant, it was offered to, and accepted by him, and has been retained by him to the present time. The responsibility of this position is shown in the yearly manufacture of from eighteen to twenty million feet of lumber in a mill employing one hundred hands, in the operation of two bands, a gang, and a necessary complement of lath and shingle machinery.

Mr. Campbell was married in 1887 to Miss Minnie W. Irvine of Alma, Wisconsin, and to them have been born one son and two daughters. Mr. Campbell is a Republican in politics, while not obstrusive in his views, and with no desire for political office or preferment.

James Mulvey of Stillwater, Minnesota, was born in England in the year 1835, and when fourteen years of age accompanied relatives to this country. Soon after his arrival he found employ with William Leat, a saw mill owner residing about three miles from Chautauqua lake, New York, remaining in that gentleman's employ for a year and a half, when a favorable opportunity presenting, he in company with three other boys went to Louisiana, where they took a contract from a planter to build a number of small houses for the use of the slaves on his plantation. This venture proved successful, but Mr. Mulvey thinking the North a preferable section left the South, and reaching Stillwater in 1853, found employment with the St. Croix Boom Co. in assorting logs at the boom. In the fall of that year he visited Chicago and found employment with the Michigan Central railroad, which was at the time engaged in the construction of a breakwater in the lake, and spent the winter in towing piles from the shore to the works in the lake, and in transporting the laborers to and from their work and meals. In the spring of 1854 he returned to Stillwater and resumed his work at the boom. The following winter he went into a lumber camp, assisting in running the logs in the spring, and continuing in the rafting business until 1859, when in company with David Carmichael, he purchased a small timber tract, and together they engaged in logging on their own account for the next two years, meeting with excellent success. Upon the breaking out of the war of the rebellion, they both enlisted in company C of the 8th Minnesota Infantry, and were sent into the western part of the state of Minnesota to suppress the Indians, who but a short time before had taken up arms against the settlers, and had inaugurated the massacre in which many lives were sacrificed, and the entire region subjected to a reign of terror. Late in November of that year they were ordered to Fort Snelling as an escort to the women and children who had been recaptured from the Indians of the Yellow Medicine agency, and were soon after sent up the Mississippi river to Fort Ripley where they wintered. During the spring and summer of 1863 they were sent to different points along the borders of Minnesota and Dakota, and the following winter were quartered at Fort Abercrombie. In the spring of 1864 they were sent to Lock Center under command of Brigadier-General Alfred Sully, who had one of the two brigades which formed the division, the other being under the command of General ("Pap") Thomas. Before leaving this neighborhood, they drew horses, and as mounted infantry scoured the country of Montana and the Dacotahs, engaging in several skirmishes and more serious engagements. Returning in the fall of 1864 to Fort Snelling, they were immediately sent to Murreysboro, Tennessee, and were kept on the move through the South, occasionally being called into battle. They were at Raleigh, North Carolina, at the time of Lee's surrender, and receiving an honorable discharge returned to Stillwater in July, 1865. They both succeeded in finding employment as managers of logging and rafting operations on the St. Croix river and followed this occupation until 1879, when they again entered into partnership and commenced operations on their own account. They now purchased stumpage on Snake river and cut from three to five million feet of logs for which they found ready market with the manufacturers, increasing their purchases of lands, and their output of logs as market requirements dictated. Doing their own rafting and being recognized as expert and reliable, their rafting operations have been extended to include the stocks of others, and being thoroughly equipped with the necessary tools and adjuncts of the business, their business in this line runs up to from thirty to forty million feet per season. Of their own much is manufactured and sold as lumber, as well as in the log.

Mr. Mulvey was married in 1865 to Miss Miranda Edwards of Cattaraugus, New York, two sons and two daughters having been born to them, of whom Arthur the elder son, born in 1867, has for the past four years been recognized as a successful logger on his own account. The other children, Jessie A., Edna M. and Walter S. are still at home. Mr. Mulvey is Grand Commander of the Grand Army of the Republic in the state of Minnesota, is a member of the Masonic fraternity, and is a Republican in his political affiliations.

Edgar S. Coffin.—Among the many industries which a rapidly developing country has given rise to in connection with the lumber industry, and among the most important, may be named that of the manufacture of packing boxes, which may be credited with the consumption of probably one billion feet annually of the coarser varieties of lumber, which in the main are unsuited for the finer uses to which the main production of the saw mill is devoted. With the development of manufacturing industries, throughout the land, and with the importance which the packing of meats for export as well as home consumption has attained, box manufacture has taken a position of prominence, ranking with that of many of the leading industries of the land, and in connection with it the historian takes occasion to mention the incorporated company known as the Coffin Box & Lumber Co. of Minneapolis.

Edgar S. Coffin, secretary and treasurer of this company, was born at Jackson, Maine, in 1858, the son of Harry M. and Sarah (Ferguson) Coffin, who removed to Minneapolis in 1867, where the subject of this sketch was educated in its public schools, upon leaving which he found employ in the wood working department of the Monitor Plow Works, where he remained from about 1873 to 1885, when he embarked in the manufacture of packing boxes locating in what was known as the "Power" building on Nicollet island. The beginning was in a modest way, employing but four men at first, but gradually increasing and extending, until steady employ was given to fifty or more employes. In 1890 the business was incorporated as the "Coffin Box & Lumber Company," having previously been known under the individual designation of E. S. Coffin. In the same year the company erected a hardwood saw mill at Irving Creek, three miles from Menomonie, Wisconsin, and in connection with it a veneer cutting mill, for the manufacture of material for market and other basket and thin box stock from the maple and elm timber which abounded in the neighborhood, together with an excellent quality of basswood, which their rotary mill prepared for an eastern market. In 1895 they added the manufacture of berry boxes for the local trade, the raising of small fruits having become one of the standard industries of the neighboring region. The cut of the hardwood mill is about 5,000,000 feet per year, while the consumption of the box factory at Minneapolis requires a supply of about 4,000,000 feet yearly. Mr. Coffin is a bachelor, the charms of the fair sex not as yet having been potent to divert him from the earnest pursuit of his business activities. In politics he is a warm adherent of the Republican party, and in social and business circles is held in high esteem.

CHAPTER XXXVI.—MINNEAPOLIS AND ST. PAUL.

THE UPPER MISSISSIPPI RIVER DEVELOPMENT.—PRESENT OPERATORS.

THE Mississippi Valley Lumberman of February 1st, 1895, published over the signature of Fred H. Gilman, a historical resume of the inception and progress of the lumber industry at Minneapolis, from which the historian collates many of the following facts, in connection with those drawn from Pioneer reports, and conference with surviving lumbermen of the earlier period.

It is remarkable but true, that the first evidence of civilization in the neighborhood of St. Anthony's Falls, now the heart of the great city of Minneapolis, was a saw mill which was for many years and until torn down, known as the "old government saw mill." This mill was built on the banks of the Mississippi on the west side of the falls of St. Anthony, by the government, under the direction of Col. Snelling, in 1824. It was run by an old-fashioned water wheel, and turned out slabs and boards which were used in building the post quarters, or so much of them as were not constructed of sandstone, which was much better calculated to keep out the bullets and burning arrows of the crafty Sioux than was the best of the forest product. The mill was operated by soldiers, who without any of the modern adjuncts of shot gun feed, band saws, gang edgers, log turners, etc., loaded on a big log, turned on the water to the primitive water wheel, greased the journals of the shafting, and then went off to hunt squirrels, when there were no crafty Indians in sight, having ample time for the diversions of the hunt, before the saw completed its cut, and the log needed to be set for another. This old mill had capacity for cutting about five hundred to one thousand feet per day, and was operated but for a few years, by soldiers from the fort five miles down the river, to the extent which the exigencies of the post demanded, and was allowed to fall into decay when those exigencies ceased. In 1849 Hon. Robert Smith of Alton obtained a five-year lease of it, in connection with the crude flouring mill upon the same site, operating the latter for the advantage and benefit of the few settlers who were coming into the country, but paying little attention to the saw mill. Previous to this time the old mill was operated in a desultory manner, by almost anyone who chose to obtain a few logs and saw them up, in what might not inaptly be termed "the old rattle trap," saw mill.

The first frame house in St. Anthony, as the settlement on the east side of the river was called, (the west side being reserved by the government and having no habitations other than Indian tepees,) was built by R. P. Russell during the summer of 1848. The logs for it were cut by Pierre Bottineau at some point on the Upper Mississippi, and floated down to the old mill, where they were sawed on one side and hewed on the other. The "breasted" shingles for its covering were boated from Stillwater, there being no shingle mills at the falls until some years later.

Among the first arrivals at the new settlement in 1847 was Caleb S. Dorr, who with Ard Godfrey, William A. Cheever and John McDonald was for many years a prominent factor in the logging and lumber industry of this section. To Mr. Dorr belongs the credit (1895) of being the oldest living lumberman of the Upper Mississippi, after nearly a half-century of residence. Mr. Dorr was from Maine, and with others engaged on the first day of October, 1847, in putting up the first log buildings, including a house, mess room, carpenter shop and stables. Believing in the resources of the country to the north in the way of timber, arrangements were at once made for the erection of a saw mill. Franklin Steele, who had come to Fort Snelling as early as 1838, and was active in the work of building up the city until his death in 1880, took up a claim on the east side of the river, and in the winter of 1847-8 with Robert Rantoul, Caleb Cushing, Arnold W. Taylor and others built the first mill to succeed the old government structure. Ard Godfrey, who was from Orono, Maine, was the millwright, and with Mr. Dorr was engaged to build a log dam across the east channel of the river at the head of Hennepin island. The mill was partially completed and turned out a small quantity of lumber in 1848. It was equipped with a gate saw, and was of the pattern common to the day. Calvin Tuttle and Ard Godfrey were associated in running the mill and R. P. Russell kept the accounts. The night sawyer was "Banjo Bill," who, to celebrate the starting of the mill, used a little more of the internal lubricant than was conducive to good judgment, and a smash-up of the machinery was the result, involving considerable delay and expense for repairs. A controlling interest in the mill was sold to Cushing and Rantoul for $12,000, but through failure to meet their payments the property reverted back to Mr. Steele before the close of the first year. A half interest then was acquired by Arnold W. Taylor of Boston for $20,000, and by him re-sold to Mr. Steele in 1850, for $25,000. The logs for the first season's sawing were banked by Caleb Dorr in the vicinity of Fort Ripley, and the first drive reached the St. Anthony boom in September of that year. During the following winter Mr. Dorr went east, and returning, brought with him a shingle machine, the first to be brought to this section. Not being able to get it placed in the mill, he sold it to parties who set it up at Fort Ripley, where it was operated by some of the soldiers, who ran it by mule power, its product being used upon the buildings of the post. The first year's run of the St. Anthony mill was between five and seven hundred thousand feet, an amount quite in contrast with the 491,000,000 feet which comprised the manufacture of Minneapolis in 1894. In 1849 the mill was enlarged by the addition of two more gate saws, the building being enlarged, practically to a block of four mills, they being operated by Franklin Steele for about four years. In the course of the next few years the number of saws in the block of mills was increased to eight, and in 1853, H. T. Welles invested $80,000 in the lumber business and operated seven of the eight saws in the mill. During the same year Mr. Welles transferred his interests in the mills to Dorillus Morrison, who was operating in 1857.

Major Joel B. Bassett reached Minneapolis from New Hampshire in 1850, and engaged in logging and lumbering, helping to build the booms and doing other work about the mills. All of the lumber sawed by the mills on the east side was required in building homes for the settlers, although occasionally some would be hauled by team, or floated by raft to St. Paul. In 1851 Major Bassett started a lumber yard at St. Paul, which he operated for a few years. There were no mills on the west side until 1856, when Major Bassett erected a steam mill on the bank of the river at the mouth of a creek, at first known as "Major," afterward as "Bassett" creek. This mill he operated during 1856 and 1857. It is notable in this connection that at this time (1898) Mr. Bassett, who is still living, operates one of the only two water mills now running at Minneapolis, his son William L. Bassett taking the active management of the extensive business inaugurated by his venerable father. In 1854, Dorillus Morrison and Mr. Lovejoy, who were running the east side block of mills, took out one of the sash saws and put in a gang, the first to be operated here. Mr. Morrison furnished the stock, and Mr. Lovejoy did the sawing for him under contract. In the steam mill of Mr. Bassett on the west side, a mulay and circular were used, this being the first circular saw operated at this point. The Bassett steam mill burned in 1858 and the Major seeking a more desirable location, decided to build on the falls, and a platform was built directly on the ledge of rocks, the first of the block of west side platform water-power mills. In this he was associated with Isaac Gilpatrick. In 1859 a gang mill was put in. In the upper story of the Pioneer mill, Major Bassett put in machinery for manufacturing pails and tubs, the first industry of the kind in the State. What lumber was not required for home consumption in Minneapolis and St. Paul, both of which cities were rapidly growing and increasing their demands for lumber, was rafted down the Mississippi to as far south as St. Louis; as fast as it left the saws it was thrown into a chute, which having a running stream of water of sufficient volume, delivered it at a point below the falls, convenient for being made up into rafts, which were not infrequently of a size containing 1,000,000 feet, put together in cribs which were secured by "snubbers" binding the frame of plank or timber, which was further secured by long wooden pins passing from the bottom frame to the upper, where they were securely wedged. When a raft was completed it was not unusual to put on a deck load of tubs and pails, or of shingles, to be sold in the markets of the lower river, this being the customary method of transporting the product of the mills of the upper river to the then prominent wholesale markets of the Lower Mississippi, the deck load being often sold for a sum sufficient to defray all of the expenses of the trip. In the earlier years, Major Bassett as well as other manufacturers accompanied the raft to its destination and attended to the disposition of the lumber, this being the most expeditious method of transportation and travel known to the times. It is in this connection worthy of note that a citizen's right to vote at any point at which he found himself on election day, was undisputed, there being no such thing as a registration by which to assure the right of exercising the franchise, and a citizen was a citizen everywhere, so far as voting was concerned.

Among the earlier lumbermen of Minneapolis was J. W. Day, at present the senior member of the firm of J. W. Day & Co. Mr. Day came from Wesley, Maine, where he had been engaged in the lumber business, and when he reached Minneapolis he took up a claim which he has since retained. In 1851 his father, Leonard Day, whose name is closely linked with the history of lumbering in the west, operated the old government saw mill, putting in some new machinery, continuing to operate it for several years. In 1853 he was joined by his two sons, W. H. H. and L. D. Day, who in 1854 formed a partnership and cut logs on Rum river. The logs for the old government mill under Mr. Day's administration were sluiced from the head of the Rapids to the mill. From this period the Days were always engaged in either a logging or lumbering business, continuing to the present time.

But to go back along the last of the fifties; Edward Jones and Jonathan Chase operated one of the east side mills, Chase selling out to Jones just before the war, and soon after going into the army. Jones continued in the business for many years and in 1861 he built a mill on the west side platform adjoining the Day mill, and in 1862, W. P. Aukney, J. B. Robinson and C. H. Pettit built another mill adjoining the Jones mill. This made four mills in a row. Mr. Jones is still living, Mr. Aukney has joined the majority. Not long after, Dorillus Morrison built a mill adjoining the one last mentioned, and equipped it with a circular and two gangs. There was considerable space between the Morrison mill and that of Robinson, Aukney & Pettit, and in 1863 W. D. Washburn filled the gap by building a mill which was known as the "Lincoln" mill, and completed the row of six mills.

Previous to this time a man named Wolcott built a steam mill on the west bank of the river above the present suspension bridge, and equipped it with a circular, gang and siding mill. On the east side A. Marr & Co. put up a steam mill in 1857 at about what is now Twentieth avenue north, which was equipped with a mulay and circular. In 1855 the old Farnham mill, which afterward belonged to Farnham & Lovejoy, and the stone sash and door factory of Rogers, Stimson & Kent, built in 1854, were located on Hennepin Island. The sash and door factory was probably the first real factory of its kind at Minneapolis, although some work in this line had been done at planing mills. This factory began operations in the summer of 1854, but its proprietors failed during the panic of 1857, and the building, after being used as a paper mill for several years, was, in 1887, purchased by the city and converted into a pumping station. The old Farnham mill was burned and rebuilt in 1871.

During the latter part of the "fifties," steam mills began to be located on the west side of the river, the Water Power Co. not granting sufficient privileges to the lumbermen on the east side, the increasing tendency toward the manufacture of lumber at this point leading to sites being selected and more steam mills to be erected. About 1864 Merriman, Barrows & Co. built the first of the lower east side block of mills. Soon after, Cook, Gaines & Co. erected a mill adjoining the first, which was afterwards leased by Weeks & Coe. The John Martin Lumber Co. added another mill to the block during the winter of 1866-7, and W. W. Eastman put up another about the same time. The last mill in the block was built by William McMullen on the site later occupied by his more modern mill. The absence of well-fitted machine shops made the running of machinery in these early days a matter of great difficulty, and saw mill operators were dependent upon the limited facilities of a small foundry at St. Paul for repairs, while for engines, boilers, etc., dependence was had wholly upon the east. The machinery for Major Bassett's mill of 1856, was brought from Northampton, Mass., and its flues giving out soon after it was set in operation, new flues were hauled by team from Dubuque, Iowa. The first steamboat to run in the Mississippi above the falls was the Ramsey, the machinery for which was made in Bangor, Maine, and reached Minneapolis by way of New Orleans and up the Mississippi.

With the close of the war of the rebellion and the revival of business, began what might be termed the second era of saw mill building at Minneapolis. In 1857-8 lumber rafted down the river to Galena, Hannibal and St. Louis, sold at from $7 to $8 per thousand feet, mill run; a year later it brought $16, and during the war it brought as high as $22 on the average; shingles selling at $5, and lath at $6.25. After the war, prices dropped to $14 and $16, but have never reached the low values of the ante-war period. In 1869 the "Past" mill was built on the river at the foot of Dunham Island; its boilers exploded soon after it was built, and the mill was never operated to any great extent. The Eldridge shingle mill was also built in 1868.

But few of the lumber concerns now doing business in Minneapolis date their history back of 1870, and the history of the saw mill building of about that time paves the way for the mention of the later and present manufacturing concerns.

From the time the first mill was built at the Falls of St. Anthony until twenty years after, there was a succession of building of mills and the burning or tearing down of old ones. On the 20th of October, 1870, the original block of east side mills was destroyed by fire, wiping out the pioneer buildings, the erection of which had commenced in 1847.

Major Bassett left the old pioneer mill in 1867 and built another water-power mill about where the west side pumping station of the city has since been located. This site he sold to the city in 1871, and moved the machinery into the new mill, which he built at the upper end of the old mill, and some years later sold the new mill to the city, which required the site for the enlargement of the water-works. Mr. Bassett then built his present mill. In 1879 Eastman, Bovey & Co., consisting of W. W. Eastman, C. A. Bovey and John DeLaittre, operated the old pioneer mill, which Major Bassett had operated for many years, purchasing it from B. S. Bull & Co., who had become its owners. The firm operated the mill until the close of the season of 1879, when the Minneapolis Mill Co. purchased the site, and Eastman, Bovey & Co. purchased the Butler mill, one of the lower east side block of mills. The Minneapolis Mill Co. also leased, for a term of ten years, the other mills on the platform of the west side, the object being to secure a better supply of water for the several large flouring mills which had been erected by the company, and this was the most available method of getting rid of the loss occasioned by the use, by the saw mills, of a reduced volume of water in the river, which was by this time a hindrance to successful operations. This ended the history of the west side platform mills, the water-power mill of Major Bassett alone remaining to witness of one of the greatest water-power aggregations of saw mills which the country has ever known.

The original "A" mill of the Nelson-Tenney Co. was built in 1872, by Capt. John Rollins, who, soon after its completion, sold it to Fred P. Clark, from whom Nelson, Tenney & Co. (organized in 1880 by B. F. Nelson, W. M. Tenney and H. W. McNair), purchased it in 1881. With the addition of H. B. Frey in 1883, and of W. F. Brooks in 1887, this company was later incorporated as the Nelson-Tenney Lumber Company. The first year the company was in existence it operated the Rollins mill (under lease) above the Plymouth avenue bridge, on the east side, which was built by Lee & McCullough, by whom it was sold to E. W. Backus & Co., and purchased by Nelson, Tenney & Co. in 1887; this mill was burned in 1893. The "B" mill of Nelson, Tenney & Co. was built in 1885 by Stetson & Clough Brothers, who operated it until 1892, when it was purchased by the Nelson-Tenney Co. It originally contained a circular, a gang and a band (which about this time sprang into public favor), but the circular and gang were in later years removed and the mill became a three-band mill, the only one in the city (1895).

Another of the early mills was built by P. G. Lamoreaux on the east bank of the river, which he later sold to Fletcher Bros., from whom it was purchased in 1888 by A. E. Horr & Co., of which firm E. W. Backus was the "Co." This mill was for many years known as the "Horr" mill, and later as the "Backus" mill, until it was destroyed by fire, with the lower Backus mill, in 1893. Mr. Backus was, from 1883, associated with J. W. Lee, succeeding to the firm of Lee & McCullough, which had owned and operated the smaller mill above mentioned as sold to Nelson, Tenney & Co. In 1886 Lee & Backus was succeeded by E. W. Backus & Co., of which J. H. Rowe was a member, and in 1888 the company purchased the Beede & Bray mill, which was built by Trask & Graham.

In 1872, or 1873, Bedford, Boyce & Baker erected a steam mill at the foot of North avenue, which was burned, and rebuilt by the Hall & Ducey Lumber Co., and which is now known as that of the Shevlin-Carpenter Co., which still operates the mill. At one time there was a mill on the west side above the suspension bridge. It was built in 1872 by Joseph Dean & Co., who operated it for several years, until it was sold to Major Camp and T. B. Walker, and was run by Camp & Walker until its destruction by fire. The lower east side block of mills burned in 1887, and as the Butler mill, then owned and operated by Eastman, Bovey & Co., was included in the destruction, the company purchased a site on the Farnham farm and erected their present mill. Among the west side mills of recent date is the present mill of J. W. Day & Co. In 1885 the Minneapolis Mill Co. bought the old mill at the falls and tore it down. The firm then began the erection of the mill which they now operate, and completed it the following spring.

When Joseph Dean, in the early days, built two steam mills, which were known as the "Atlantic" and the "Pacific," there was interested with him in the firm of J. Dean & Co. Messrs. Asbury, Hugh and William Harrison and Madames Goheen, Green, Johnson and Jones. The Atlantic mill was burned and the site was later occupied by the Elliott shingle mill, which also burned a few years later. The Pacific mill was, in 1877, purchased by Camp & Walker, and run by them until burned, in the early eighties, when it was rebuilt by them and operated for a number of years, when they went out of the manufacturing business, and the mill was torn down.

In 1863 J. G. Smith bought from Dean & Harrison a planing mill, which he converted into a sash, door and blind factory; the building was located on the west side of the river at the falls, the front resting on the ledge at the top of the falls, and the rear at the foot of the falls; it was run by water-power, and was the beginning of the extensive sash and door manufacture of Smith & Wyman.

In 1877 Levi Butler built a mill on the east side of the lower block of mills, between the mill of McMullen & Co. and the Todd, Haven & Leavitt mill, which was eventually destroyed by fire when the block of mills was burned.

The cut of logs on the Upper Mississippi in the winter of 1877, for the use of the Minneapolis mills, amounted to 132,000,000 feet, and a list of the manufacturing concerns operating at that time would include: Merriam & Lane; McMullen & Co.; Pettit, Robinson & Co.; Camp & Walker; L. Butler; Bedford, Boyce & Baker; F. P. Clarke; Morrison Bros.; Farnham & Lovejoy; W. D. Washburne & Co.; Eastman, Bovey & Co.; J. B. Bassett; Todd, Haven & Leavitt; Aukeny & Newton, and L. Day & Sons. Other concerns, either manufacturing or dealing in lumber, were F. G. Mayo, Barrows Bros. and Cook & Sullivan. F. L. Johnson & Co. were making sash, doors and blinds, as were L. C. Bisbee and C. S. Bardwell, whose factory on the east side was built in 1873; in 1875 they removed to the west side, and a year later S. C. Robinson bought out Bisbee's interest, C. N. Robinson coming into the firm in 1879, which was incorporated in 1892 as the Bardwell-Robinson Co.

The "Diamond mill" was built in 1881 by Smith & Richardson, with whom were associated Nathaniel Leighton and Walter Benton, both of whom withdrew a year or two later. In 1888 Smith & Richardson remodeled and rebuilt the mill, which was burned in 1892, but was immediately rebuilt. Mr. Leighton was one of the builders and owners of the Plymouth mill, erected in 1882 by himself and F. C. Barrows, the latter selling his interest at a later date to Mr. Leighton, who continued in its ownership until his death, in 1894. The mill, however, was leased in 1884 to Frederick Stevens, who has since operated it.

With the decadence of the timber supply of Michigan, many of the once prominent operators in that section turned their attention to the more virgin fields of Minnesota and Wisconsin. Among these H. C. Akeley, who is prominently mentioned in connection with the lumber industry of Grand Haven, Michigan, went to Minneapolis in 1887 and organized the Itaska Lumber Company, and later the H. C. Akeley Lumber Co., composed of H. C. Akeley, F. S. Farr, Ray W. Jones of Minneapolis (but formerly of Muskegon, Mich.), and C. H. Hackley and Thomas Hume of the Hackley & Hume Company of Muskegon, the De Sota Company, composed of the same parties, except Mr. Akeley, doing the sawing for the Itaska Company, which owned no mill, but confined its efforts wholly to the logging department. The De Sota Company purchased the mill of the Duluth Lumber Company of Duluth and removed it to Minneapolis, erecting it on the site since known as that

B. F. Nelson

of the "Akeley" mill, equipping it with two circulars and a gang, having an annual capacity for sawing 100,000,000 feet of lumber per season. In 1889 the late David Joyce of Lyons, Iowa, purchased the interest of R. W. Turnbull in the Itaska Lumber Co., which then consisted of Messrs. Akeley, Joyce, and S. B. Barker of Chicago. About the first of February, 1889, the De Sota Lumber Co. was purchased by and merged into the H. C. Akeley Lumber Company, which was capitalized at a half-million dollars.

The Northern Mill Company, of which mention has been made, was organized in 1885, the machinery for the mill erected by the company being removed from the former Walworth & Reed mill at Muskegon, Michigan. The incorporators were W. W. Huntington, Reed Brothers of Chicago, and W. B. Ganson of Minneapolis, J. E. Glass and Ray W. Jones subsequently becoming members of the company. In 1894 this company closed out its business, and the mill passed into the hands of the E. W. Backus Lumber Co.

The Hall & Ducey Lumber Company commenced the manufacture of lumber in 1886. It owned timber which it had manufactured at the mill of the Hall & Shevlin Company, which was built in 1886, at the foot of North avenue, on the site of the burned mill of Goodnow & Hawley, which was originally erected by Bedford, Boyce & Baker. The Shevlin-Carpenter Company was incorporated in 1893, and into it were merged the Hall & Ducey Company and the Hall & Shevlin Company.

Another of the later mills is that of the Carpenter-Lamb Company, which was built in 1893 and operated first in that year. It is located on the east side of the river at the foot of Thirtieth avenue north. This company was composed of J. E. Carpenter of Clinton, Iowa, E. J. and S. J. Carpenter of Minneapolis, C. R. Lamb, formerly of Clinton, and I. R. Goodridge. The Carpenters were connected with the Adams & Horr Company at the time of its incorporation, in 1880, which handled in this section the product of the Curtis Brothers' sash, door and blind factory at Clinton. In 1887 E. L. Carpenter and S. J. Carpenter acquired the interests of Henry Horr and Frank Adams and formed the Carpenter-Adams Company, and then began wholesaling lumber. In 1891 the Carpenters acquired all of the stock of C. F. Curtis and Noah Adams, and formed the house of Carpenter Brothers & Co. E. L. Carpenter subsequently purchased an interest in the Hall & Ducey Lumber Company. The mill of the Carpenter-Lamb Company is one of the most complete in the city. In 1893 two other mills began sawing, one being the McMullen mill, built on the site of their mill burned in 1892, the other being the mill of C. A. Smith & Co., which soon after was incorporated as the C. A. Smith Lumber Company. Mr. Smith had been for some years associated in the wholesale lumber business with J. S. Pillsbury, having lumber sawed at various mills, until the erection of the mill in 1893, when the company was incorporated and built their fine and modern mill at the foot of Forty-fourth avenue north. (See sketch.)

This completes the history of saw mill building at Minneapolis from the early days of the old government mill at the Falls of St. Anthony. There are, and have been, numerous firms engaged in the lumber business of Minneapolis, who have been more or less intimately connected with the trade of this section, but of whom space does not permit reference, our main purpose being to outline the rise and growth of the manufacturing industry. From the humble commencement of the business, when a few hundred feet daily, at the most, was produced by the labors of the soldiers placed here to guard the, as yet, uninhabited frontier, our recital shows in the main the progress of the lumber development to a production of a half a billion feet per year, with a vast forest to the north from which, for some years to come, the mills of Minneapolis may continue to draw supplies for an industry which divides with the immense flour milling industry of the city the honors of being esteemed the greatest source of the prosperity which has developed one of the leading and most influential cities of the continent.

To the nearly 500,000,000 feet of lumber, the product of Minneapolis mills in the year 1894, must be added 121,323,750 shingles and 93,940,000 pieces of lath, swelling the aggregate of production to 516,816,263 feet if reduced to logs. The parties producing this large quantity of lumber, and the amount manufactured by each, were as follows, viz.: C. A. Smith Lumber Co., 52,000,000 lumber, 19,000,000 shingles; Bovey-DeLaittre Lumber Co., 31,686,980 lumber, 6,833,000 shingles, 4,052,100 lath; H. C. Akeley Lumber Co., 89,487,570 lumber, 27,620,250 shingles, 22,214,025 lath; E. W. Backus Lumber Co., 60,000,000 lumber, 21,000,000 shingles, 10,000,000 lath; J. W. Day & Co., 30,000,000 lumber, 1,000,000 shingles, 7,000,000 lath; N. P. Clarke & Co., (not run); Shevlin-Carpenter Co., 46,000,000 lumber, 7,000,000 shingles, 7,000,000 lath; J. B. Bassett & Co., 15,000,000 lumber, 4,000,000 shingles, 4,500,000 lath; Nelson Tenney Lumber Co., 45,000,000 lumber, 6,000,000 shingles, 13,000,000 lath; Carpenter-Lamb Co., 28,000,000 lumber, 6,000,000 shingles, 8,500,000 lath; Diamond Mill Co., 31,082,243 lumber, 6,370,000 shingles, 7,600,000 lath; Plymouth Mill, 31,000,000 lumber, 7,600,000 shingles, 7,000,000 lath; McMullen & Co., 32,000,000 lumber, 6,000,000 shingles, 3,000,000 lath. This aggregate of product was an increase of 81,256,538 feet of lumber, and a decrease of 16,584,500 shingles and 6,249,575 pieces of lath, in comparison with the product of the preceding year.

During the season of 1894 the mills of the Mississippi above Minneapolis, including Anoka, 17,000,000; Brainard, (no report); Cambridge, 1,000,000; Crookston, 18,000,000; Cuching, 2,500,000; Elk River, 2,500,000; Flensburg, 300,000; Fosston, 200,000; Foreston, 3,500,000; Frazee, 1,000,000; Grand Forks, (no figures); Little Falls, 57,000,000; Lincoln, 2,500,000; Menahga, 2,000,000; Motley, (no figures); Monticello, 3,000,000; New York Mills, 1,500,000; Park Rapids (four mills), 1,500,000; St. Cloud (two), 10,873,000; Thief River Falls, 7,200,000; reported a grand total of 131,574,000 feet of lumber, to which must be added 25,483,000 shingles and 22,066,000 lath, a slight reduction being noted in each article from the aggregate quantity produced in 1893.

Included under the head of "Miscellaneous" mills the records of 1896 may be taken to show the various localities of manufacture outside of the principal points, already enumerated: Ada: Wild Rice Lumber Co., 600,000; Atkinson: Green & Brumfield, 500,000; Cambridge: Goldberg & Anderson, ————; Columbia: J. Z. Perron, 365,000, shingles, 300,000; Crookston: Red River Lumber Co., 13,000,000, shingles 3,500,000; Cushing: S. Dover, 1,500,000; Foley (also Bridgman), Foley Bros., ————; Fosstown: John Mitturn, 700,000, shingles, 200,000; Ground House: N. Adams Lumber Co., 3,000,000, shingles 1,600,000; Kerrick: F. Duquette, 500,000; Loversee & Hurd, 2,500,000; Lincoln: William Long, ————; Menahga: P. Plin, 350,000, shingles 750,000; Milaca: Foley & Bean, 34,831,339, shingles 6,517,250; Mora: Olson Bros., ————; Nickerson: Nickerson & Co., 15,000,000; Scanlon: Gipson Lumber Co., 23,000,000; Park Rapids: J. Coleman, 400,000; T. C. Myers, 200,000; Park Rapids Lumber Co., 2,800,000, shingles 244,000; Randall: F. Lucas, 250,000; Rutledge: Rutledge Lumber Co., 10,000,000; Thief River Falls: P. & J. Meehan, 5,000,000, shingles 1,800,000; George Mason, ————. A total for 1896 of 114,546,339 feet of lumber and 14,911,000 shingles at these outside points.

The statistical reports of 1894, give aggregates of lumber production for the state of Minnesota as follows: Above Minneapolis, 130,954,000; Minneapolis, 491,256,000; below Minneapolis, 673,572,000; St. Croix, 170,440,000; Duluth district, 342,806,000; a grand total of 1,809,028,000 feet. Of the figures "below Minneapolis" it may be said that while they represent the production of mills other than those of Minnesota proper, we include them as a compensation for the production at various points included in railroad statistics which should properly be credited to Minnesota, but whose production of lumber we find no means of separating from the grand aggregates of roads whose statistics include principally a Wisconsin credit. A grand aggregate production of two billion feet of lumber annually may be properly credited to the state of Minnesota in the present development of her forest resources. It should properly be added that the shingle production of the State as shown by the statistics of 1894, aggregated 475,082,000, while the production of lath is set down as 393,736,000 pieces, the manufacture of these two products requiring 98,728,000 feet of logs. For further details of Minnesota history, the reader is referred to the chapters relating to the St. Croix, Duluth, Winona, etc., and to the final summing up of production.

While St. Paul has never figured to any great extent as a lumber manufacturing point, we yet find in statistical annals of that city mention of mills in which are included that of McCain Brothers & Bartram, built in 1870, capacity 8,000,000 feet, running one circular saw, and employing twenty men, their manufacture in 1874 being placed at 5,500,000 feet. John McKellar is noted with mill built in 1873, having an estimated capacity of 4,500,000 feet with one circular, employing twenty men, and with a cut for 1874 of 2,500,000 feet of lumber and 500,000 shingles. These mills operated but a few years and dropped out of the records of production.

Benjamin Franklin Nelson is the head of the Nelson-Tenney Lumber Company, manufacturers and dealers in lumber at Minneapolis. He is a splendid example of the self-made man, and an instance in which the making has been well done. He was born of humble parents in Greenup county, Kentucky, May 4, 1843. His parents were natives of Somerset county, Maryland. His father lost his health, and the support of the family devolved upon the sons. This left Benjamin F. with little opportunity for schooling, and when seventeen years of age he engaged with a partner in the lumber business. This, after two years, was broken up by the war, and an attempt at farming was unsuccessful for the same reason. Kentucky, although a slave-holding state, and sympathizing for the most part with the confederacy, was controlled by the strong arm of the federal power, and such of her sons as saw fit to enter the southern army did so from a firm conviction of right and duty, rather than from loyalty to their state. Mr. Nelson was nineteen years of age when he enlisted in Company C, of the Second Kentucky Battalion, and went into active service under the command of the confederate general, Kirby Smith. He served successfully under Humphrey, Marshall, Wheeler, Forrest and Morgan, and participated in the battles of Chickamauga, McMinville, Synthiana, Shelbyville, Lookout Mountain, Mount Sterling and Greenville, besides numerous cavalry skirmishes. Mr. Nelson was in the thickest of the fight for over two years. In 1864, while on recruiting duty in Kentucky, he ventured into the federal lines as far as the Ohio river. He had secured a few recruits and was returning with them when he was captured and sent to Lexington. While he was confined there fourteen men were taken out and shot, two of them being recruits captured with Nelson, and for a time he was in danger of suffering the same fate. He was, however, sent to Camp Douglas in Chicago, where he was held until 1865, when he was sent to Richmond and paroled at the close of the war. Mr. Nelson returned to his home in Kentucky, where he was employed in a saw mill for a few months, and then decided to try his fortune in the far west. It was the 3d day of September, 1865, that he landed in St. Paul. He only remained there one day, when he went on to St. Anthony. He was much impressed with the value of the water-power and believed the falls would be surrounded by a great city. Mr. Nelson went to work rafting lumber, and when the season was over, took up a claim near Waverly, where he built a house, but farming did not suit him, and he again went into the lumbering business. In 1872 Mr. Nelson formed a partnership with W. C. Stetson in the planing mill business. The business increased until they found it necessary to build another mill in order to take care of their trade. At this time they commenced dealing in lumber in a small way, which rapidly increased until 1880, when the partnership was dissolved. In 1881 Mr. Nelson associated with himself in business William Tenney and H. W. McNair, and, later, H. B. Frey was admitted to the partnership. Soon afterwards Mr. McNair withdrew, and W. F. Brooks entered the firm. It is now organized under the name of the Nelson-Tenney Lumber Company. This company has two large saw mills, with a capacity of 75,000,000 feet a year. Mr. Nelson is interested in various other enterprises. In 1887 he bought the Minneapolis Straw Paper mill, and in 1888 the Red River Paper mill at Fergus Falls. These were consolidated under the name of the Nelson Paper Company.

In 1890, together with T. B. Walker, he bought the print paper mill in Minneapolis, and the old companies were merged into the Hennepin Paper Company, operated at Little Falls. He is also a director of the Metropolitan Bank. B. F. Nelson commands the respect and confidence of his fellow citizens of Minneapolis in a marked degree, and has held numerous important public offices. In 1879 he was elected alderman of the First ward, and was continued in office until 1885. When the Park board was organized, Mr. Nelson was elected to service in that branch of the municipal government. For several successive years he served as a member of the school board, and in 1894, when the question of the price of gas was submitted to arbitrators, Mr. Nelson was selected by the city as its representative. In the same year occurred the great strike on the Great Northern railway, and Mr. Nelson was selected as one of the committee of citizens of Minneapolis to arbitrate in that dispute. He was a member of the original building committee of the Minneapolis Exposition, and gave a great deal of his time to a personal supervision of the construction of the building, and has been one of the board of directors of the Exposition ever since. He is now one of the owners of the property. Mr. Nelson is a Democrat in politics, but a man of broad and liberal views. He has served his party locally as an active worker on campaign committees, and exerts a large influence in its plans and deliberations. Notwithstanding his extensive business and many public duties, Mr. Nelson has found time to see some of the world, having traveled extensively in Mexico, Europe, Egypt and the Holy Land. His religious connection is with the Methodist church, and his eminent business capacity was recognized in his selection as trustee of Hamline University. He has been twice married, first in 1869, to Martha Ross, who died five years later, leaving two sons, William E. and Guy H. His present wife was Mary Fredinburg, who has one daughter.

William Drew Washburn.—From the ranks of men eminent in the fraternity of lumbermen, have been drawn a by no means inconsiderable number of those who have also been eminent in the ranks of our legislators and more prominent statesmen, and the same qualities which have commended them to the favorable notice of their fellow men in the political world, have been the potent factors in the development of the mercantile and manufacturing interests, which have marked the progress of the great west. It is not the province of this history of the lumber development of the northwest, to enter into the details of the general history even of those lumbermen who have proved the more prominent in this respect, while yet the truth of history demands that the lustre which surrounds their general services to the community should not be wholly lost sight of, in dealing with that specialty, their connection with which demands more extended mention.

William D. Washburn of Minneapolis, or more properly speaking, Minnesota, is an eminent illustration of this class of useful citizens. He was born at Livermore, Androscoggin county, Maine, January 14, 1831, the son of Israel and Martha (Benjamin) Washburn, both parents being descendants of members of that noble band of American pioneers, whom the nation venerates as the Pilgrim Fathers, whose descendants nearly two hundred years later, will be forever venerated as among the heroic souls who gained the equally distinguished appellation of "Revolutionary Fathers" in their patriotic and successful endeavors to gain the independence of the nation. William, the youngest of seven sons, began his education at the district school of his native town, which after his attaining the age of twelve years was supplemented by work upon his father's farm during the summer months. For three or four autumns he enjoyed the greater advantages of the High school, and at fourteen years of age was sent for a few weeks to a school in Gorham, Maine, and for a time to a school in Paris, Maine, and finally at Farmington, obtained those finishing touches which prepared him to enter Bowdoin College in 1850, upon graduating from which, he became a student of law in the office of his brother Israel, who in later years was Governor of the State, and was also for ten years one of its representatives in Congress. From his brother's office the young man went into that of the Hon. John A. Peters of Bangor, later Chief Justice of the State. In the spring of 1857 Mr. Washburn turned his face in line with the admonition of Horace Greeley, and sought the then far distant west, and found at the Falls of St. Anthony those indications of growth and future prosperity of which he had dreamed, and to which he aspired. And it is not out of place to add, where he later realized all that the hopes of youth had pictured, both of prosperity and fame.

Reaching the "Falls" (now Minneapolis) on the first of May, 1857, he at once opened an office for the practice of his profession, and in the fall of the same year was elected agent of the Minneapolis Mill Company, which about this time began improvements to and about the Falls, and continued in this capacity for the next twenty years, becoming interested as a stockholder and director. In this capacity he superintended the erection of the first dam upon the west side of the river. His occupation with the company naturally led him to the abandonment of a by no means lucrative practice of his profession, and to becoming interested in the lumber business, which was now taking its place as one of the leading industries of the young city, and about 1865 he built what was for many years known as the Lincoln Saw mills, having capacity for cutting 100,000 feet of lumber per day. In 1872 he built what was then recognized as the most complete saw mill in the western country, at Anoka near the mouth of Rum river, upon which stream he had accumulated a large body of pine timber lands. This mill consisted of a double circular and two gangs, and had capacity for cutting 125,000 feet per day. His rapidly increasing business led him about 1866 to form a partnership with Granville M. Stickney under the firm name of W. D. Washburn & Co., the connection continuing until the death of Mr. Stickney in 1874. Subsequent to the death of Mr. Stickney the mill was operated by Mr. Washburn until through the exhaustion of its timber supply in 1889 it was no longer profitable. During all the intervening years of which mention has been made, Mr. Washburn by no means confined his energies to the lumber business. Scarcely had he settled in his new home before he was elected (fall of 1858) as a representative in the legislature of the state. In 1861 he was appointed by President Lincoln to the office of Surveyor General of the State of Minnesota, and during his incumbency of this responsible office, a large portion of the northern part of the state was surveyed and brought into market. In 1871 he was elected for the second time to the state legislature, and was influential in the passage of a bill bringing the operation of the railroad system of the state, under the control of the state. In 1878 he was elected to represent his district in the lower house of Congress, where his influence upon national legislation was of a marked and beneficial character; he was twice reelected (1880-1882) serving six years. In 1889 he was elected to represent the State of Minnesota in the Senate of the nation, where the same earnest purpose and wise conservation of the wants of the nation marks his career. Mr. Washburn has frequently been mentioned in connection with the office of Governor of Minnesota, and he has at one time at least narrowly escaped the nomination.

But neither lumber nor politics have measured the bounds of enterprise or public spirit which may be attributed to Mr. Washburn, for the fame of Minneapolis as the "Flour City" is due in no small degree to his enterprise and public spirit. In 1873 he became interested with R. S. Stevens and Leonard Day, under the firm name of Washburn, Day & Co., in the erection of a flour mill, known as the Palisade Mill, at Minneapolis, the capacity of which equaled a production of 500 barrels of flour daily, and this was but the precursor or advance guard of that mighty development, which is evidenced by mills producing as high as 10,000 barrels of flour per day. He was subsequently a member of the firm of Washburn, Crosby & Co. and later a stockholder and director of the Pillsbury-Washburn Flouring Mill Company. To few, if any, of the enterprising citizens of Minneapolis, is that city indebted to a greater extent for the complete railroad system which has been so potent an aid in the development not alone of the city, but as well of the state, and of the great northwest. Earnest in the organization of the Minneapolis & St. Louis railroad, he was made its first president, withdrawing from which office, he in 1883 called the attention of local capitalists to the urgent necessity for the construction of a road from St. Paul and Minneapolis, through the intervening wilderness of the north shore of Lake Michigan to the Sault Ste. Marie, and thus providing an outlet for the products of the farms and factories, and as well the flour and saw mills of the great west, much shorter in distance to an eastern and European market than were available through existing facilities; five years later the tracks of the "Soo Line," were laid and the road was in operation, traversing the lumber-producing regions of northern Wisconsin and Michigan, connecting at the Sault with the vast chain of the Canadian Pacific road, with Halifax on the east, and Boston and New York on the south. It was but a brief period before it was discerned that the extension of this or a connecting road to the region northwesterly from Minneapolis would greatly promote the interests of the city, and again was Mr. Washburn found in the forefront of the work of building three hundred miles of the Minneapolis & Pacific railroad extending from Minneapolis to the town of Boynton, North Dakota. The parties in interest being practically the same, consolidation was a legitimate result, and the united companies are known as the Minneapolis, St. Paul and Sault Ste. Marie railway company, with a length of about twelve hundred miles, making a continuous line from the "Soo," via Minneapolis and St. Paul to a connection with the Canadian Pacific at Moose Jaw, N. W. T., and by it a through line to the Pacific.

Mr. Washburn was married April 19, 1859, to Miss Lizzie Muzzy, daughter of Hon. Franklin Muzzy, well known in the political circles of Maine, of which state he has served several terms as president of the upper House or state Senate. In politics it is needless to add except for the information of generations to come, Mr. Washburn is a staunch Republican, his political preferment having been at the hands of that party which has been dominant in the state since its organization. In his religious affiliations Mr. Washburn is a Universalist, as were his parents, and the church and denomination of Minneapolis and the northwest have in him a most earnest and liberal friend. Contact with the pine forests has always had the effect of broadening the mind and enlarging the perceptions of those who come in contact with their vastness, and Mr. Washburn is a notable example of the broadest and most intelligent among the lumbermen of the northwest.

Thomas H. Shevlin of Minneapolis was born at Albany, New York, January 3, 1852. He was the son of John and Matilda (Leonard) Shevlin, his father being a merchant of that city. At the age of fifteen years Thomas entered the lumber office of Sage & McGraw, a firm which at that time ranked highest among the dealers of Albany, which city for many years held the pre-eminence among the lumber markets of the nation, being the recognized center of the trade of the day, from which the dealers of New York City, Boston, New Haven, and in fact of nearly all the eastern cities obtained the supplies which centered in Albany from the producing markets of the Upper Hudson, Lake Champlain, and the producing points of central New York, by way of the Erie Canal. Albany was also recognized as the source whence emanated all authority upon the subject of lumber inspection, and here the young man acting for a time as tally boy to the accomplished lumber inspectors, whose judgment was law in all matters pertaining to lumber inspection, was indoctrinated into the mysteries of that art. Remaining with Sage

& McGraw for a period of ten years, he next entered the employ of the equally noted firm of Skillings, Whitney & Barnes, in their Albany office, with whom he remained one year. This firm was equally noted for the extent of their lumber operations which subsequently gave them rank second to no firm in the east or north, a reputation which is still maintained. During his continuance with this firm he was recognized as an expert inspector, and handled no small proportion of the 50,000,000 feet which then constituted the volume of their yearly business. In 1879 Mr. Shevlin went to Muskegon, Michigan, where he became connected with the S. C. Hall Lumber Co. and was elected secretary and treasurer of the company. This company in 1880 erected a new mill containing a circular and gang with a yearly capacity for cutting 18,000,000 feet per season, which they stocked from their own lands upon the Muskegon river, their operations continuing over a period of eight years. In 1886 Mr. Shevlin went to Minneapolis and in company with Mr. Hall and Patrick A. Ducey organized the Hall & Ducey Lumber Company, of which Mr. Shevlin was elected secretary and manager. This company erected a circular, band and gang mill with capacity for the manufacture of from 55,000,000 to 60,000,000 feet of lumber per season, and has large tracts of timber lands upon the Upper Mississippi river and its tributaries, from which they obtain the immense stock of logs which constitutes the annual cut of their mills. In 1888 the Hall Lumber Co. of Muskegon, having completed their cut, their timber being exhausted, sold their mill at that place and closed their operations. Mr. Shevlin is president of the J. Neals Lumber Company at Sauk Rapids, Minnesota, which operates a one circular mill with capacity of eight to ten million feet per year. In 1893 the Hall & Ducey Lumber Company was reorganized as the Shevlin-Carpenter Lumber Co., Mr. Hall having died and his interest having been purchased by E. L. Carpenter, who also purchased the interest of Mr. Ducey. The Shevlin-Carpenter Lumber Company is still in operation, and ranks among the leading houses of Minneapolis and the northwest, with an annual output of 65,000,000 feet.

Mr. Shevlin was married in 1882 to Miss Alice Hall of Muskegon, the issue being one son and two daughters. He is a Republican in politics, and a man whose character and attainments have given him a deservedly high place in the esteem of his business associates; he is regarded as an authority upon lumber matters, and exercises an important and judicious influence upon all matters affecting the welfare of the trade of which Minneapolis is the recognized center.

Elbert L. Carpenter of Minneapolis was born at Rochelle, Illinois, in 1862, the son of Judson E. and Olivia (Detwiller) Carpenter. His father has long been known to the lumber fraternity, being president of the Curtis Bros. & Co. sash, door and blind manufacturers of Clinton, Iowa; and is also president of the Carpenter-Lamb Co. of Minneapolis, so that our subject, like many another of the latter day lumbermen, may be said to have inherited his chosen occupation, and to have been born into the business. The subject of our sketch was educated at Lake Forest University at Lake Forest, Illinois, and soon after was engaged by the Curtis Bros. Company as bookkeeper, a position which he occupied for seven years, combining with it much of the general office work, so that his education in this respect was not confined to the work of the desk and books, but included a general insight into the mysteries and details of the business, thus becoming thoroughly equipped for the duties which later were destined to devolve upon him. In 1887 he went to Minneapolis, where he organized the firm of Carpenter, Adams & Co., in the handling of sash, doors and blinds, his former employers, Curtis Bros. & Co., being interested in the business; some time later his brother, Samuel J. Carpenter, became connected with the business, and the firm designation was changed to Carpenter Brothers & Co., Mr. Adams retiring, leaving the new company to build up what soon became one of the largest lumber yards of the city. Later changes made the designation of the firm to be known as Carpenter, Lamb & Co. August 1, 1892, Mr. Carpenter purchased the interest of Mrs. S. C. Hall in the Hall & Ducey Lumber Co., and in January, 1893, the name of the company was changed to "The Shevlin Carpenter Co;" previous to this Mr. Carpenter had sold his interest in the Carpenter Bros. Co., the business of which was continued by the other partners. The house of Shevlin-Carpenter Co. embraces Thomas H. Shevlin (a sketch of whom appears in this volume), E. L. Carpenter and H. C. Clarke, and occupies a prominent position in the lumber world of the northwest.

Mr. Carpenter was married in 1890 to Miss Florence I. Welles of Clinton, Iowa; one son being the issue of the union. Mr. Carpenter is a Republican in politics, and is an adherent of the Presbyterian denomination. He enjoys an enviable reputation as a thoroughly equipped business man, and is held in high esteem in the community in which he resides, and no less in the extended business circles with which he is associated.

Hovey C. Clarke of Minneapolis was born at Flint, Michigan, May 7, 1860. He was the son of George T. and Mary (Duxbury) Clark, the former of whom was actively concerned in the building of the Flint & Pere Marquette railway, and otherwise actively engaged in public enterprises at Flint and other sections of Michigan, and was numbered among the more active and intelligent of the men to whom Central Michigan was so largely indebted for the phenomenal progress which marked the era subsequent to 1860. Hovey was educated at the excellent schools which at an early day marked the progressive spirit of Flint and Genesee county, and later became a student at Ann Arbor. In 1876 he found a position in the auditor's office of the Chicago & West Michigan railroad, and remained in the employ of this company for ten years, occupying various positions of responsibility in connection with the passenger and freight departments of the road.

In 1886 he, in connection with S. C. Hall, P. A. Ducey and T. H. Shevlin, formed the Hall & Ducey Lumber Company. In 1887, in connection with S.

C. Hall and T. H. Shevlin, he formed the Hall & Shevlin Lumber Company. In 1892 the two companies were consolidated as Shevlin-Carpenter Co., which is the present style of the corporation. He has had more particular charge of the finances and credits, being secretary and treasurer of the companies from their inception.

Mr. Clarke was married in 1886 to Miss Maggie L. Rice of Detroit. He, with his wife, is a member of the Episcopal church, and in politics is a Democrat. He is esteemed among the most popular of the younger members of Minneapolis business circles as a reliable and progressive business man.

John R. Clark of Minneapolis, president of the J. R. Clark Co., manufacturers of wooden specialties, boxes, ladders, etc., illustrates in his business some features of the changes which have occurred in the development of the northwest since the days of the early pioneers, who hewed out their chairs and tables with their axes, and called their jackknives into requisition when any smaller convenience was required. Mr. Clark was a native of Auburn, Mass., where he was born in 1833, and where he spent the earlier years of his life, and on attaining his majority was fitted for the prosecution of the trade of carpenter and joiner. In 1856 he took his young bride to the then distant west, into the territory of Minnesota, within whose boundaries the Indians were by no means reduced to that measure of peacefulness which left the few venturesome settlers wholly at ease regarding the safety of themselves or their families. Settling at St. Cloud, which was in the adjoining county to that in which, nine years later, the celebrated Indian outbreak, whose first force fell at Acton, and which finally culminated at New Ulm, had its inception, Mr. Clark settled down to his trade of carpenter and builder, which he continued to follow until 1871, when he removed to Minneapolis, where, as a contractor, he continued in his line of business until in 1878, when, with the rapid growth of the city and the extension of its trade, there came a demand for packing boxes, which, growing in volume, he secured a workshop in the basement of a building on Second avenue southeast and Main street, from which he was compelled, after a couple of years, to seek larger quarters on Hennepin Island, where, in the course of a year or two, he was again compelled to remove to Nicollet Island, where he found the ample accommodations which his now greatly enlarged business demanded, and where, in 1883, he had the misfortune to have his factory destroyed by fire. Nothing daunted, Mr. Clark erected a new and larger factory, which, ten years later, in 1893, was also a victim of the flames, and was succeeded by the present brick structure, in which wooden specialties of various descriptions are manufactured, in addition to the manufacture of boxes, among which may be named the Hoyt spring clothes pin (the patent for which is held by this company), clothes racks, step ladders, ironing boards, bread boards, etc., which are turned out in large quantities, consuming in their manufacture no less than from three to four million feet of lumber per year. In 1888 Mr. Clark visited California, and becoming favorably impressed with its climate, purchased a home at Passadena, with intent to make it his future residence. Returning to Minneapolis, he incorporated his business under the laws of the State as "The J. R. Clark Co.," of which he retains the presidency, his only son, Herbert J. Clark, being treasurer and general manager. The business has grown in extent to a necessity for the employment of sixty-five men. The novel little clothes-pin which is manufactured by this company is turned out by machines at the rate of ninety a minute per machine, and, with the other specialties, find good demand, not only in the immediate neighborhood, now thickly settled, but in all parts of the nation, and at so cheap a cost to the consumer that the most cunning jackknife, in the hands of the most ingenious Yankee, could not think of competition, either in quality or cost.

Mr. Clark married Miss Annette French of New Hampshire, and to them have been born three daughters and one son, the latter, Herbert J. Clark, being, as before remarked, treasurer and general manager of the present company. He received his education at the high school of Minneapolis, and early evinced an interest in mechanics, which led him to spend his holidays and spare hours in his father's shop and factory, thus growing naturally into the business, of which he was to become so important a part. He was married in 1887 to Miss Lillian Averill, who, although a native of the state of Maine, had from childhood been a resident of Minnesota, and of this marriage two children have been the issue. Mr. Clark, Sr., is a member of the Presbyterian church, and both father and son are adherents to the political policy of the Republican party.

Charles A. Smith.—Few of the many mercantile occupations of the nation have had more attraction for our foreign-born population than has the lumber business, and none have to a greater extent been potent in the development of the native talent, in the more intelligent of this class of our population.

Charles A. Smith of Minneapolis presents a remarkable illustration of this indisputable fact. Born in Sweden in the year 1852, he at a tender age had the misfortune to lose his loving mother, and when but fifteen years of age he braved the hardships of the ocean, in making the journey to America, in which land he discerned opportunities which were not to be found in his native land, and in 1867 landed upon our hospitable shores. Alone in the world, he battled for two years with the adversities of life in a new country with whose customs and language he was wholly unacquainted. In 1869 he attracted the attention of Ex-Governor Pillsbury, who, taking an interest in the boy, sent him to school, taking him into his own family to reside. Mr. Pillsbury soon found that he had made no mistake in the estimate which he had formed of the young man's ability, and in 1873 gave him a position in his hardware store at Minneapolis, where he remained as a clerk for a period of five years. In 1878 Mr. Pillsbury started him in the lumber and grain business at Hermann, Minnesota, the business being conducted under the name of C. A. Smith & Co., Gov. Pillsbury being the "Co." One year later the firm started a second lumber yard at Evansville, Minne-

C. A. Smith.

sota, and in 1880 a third at Brandon, Minnesota, and in 1881 a fourth at Ashby, in the same state. In 1884 they opened up a wholesale lumber yard at Minneapolis, purchasing logs, which they had manufactured into lumber at various mills. The volume of business reached from 8,000,000 to 10,000,000 feet per season, with a steady increase, until, in 1888, it had reached 25,000,000 feet per year, and in this year they purchased the mill property of Clough Bros. & Co. of Minneapolis, the mill containing one circular, one band mill and one stock gang, with a daily capacity for the manufacture of 300,000 feet per day of twenty-four hours. This mill was operated by them for two years, when they sold it to Nelson, Tenney & Co., and returned to their former method of purchasing logs and having them sawed by the thousand. In 1893 they built a mill at North Minneapolis, with an equipment of two band saws and a gang, the capacity of which was demonstrated in 1895 by a cut of 65,000,000 feet of lumber. For the disposition of this large cut the firm has established and operates twenty retail yards in the northern part of Minnesota and in the Dakotas, while Mr. Smith is interested in six large general stores in the northwestern part of Minnesota. In 1893 the firm name was changed from C. A. Smith & Co. to an incorporation known as the C. A. Smith Lumber Co., which continues to operate upon a large scale, doing its own logging to a great extent, manufacturing the product at the mill before mentioned.

Mr. Smith was one of the organizers and is a director in the Swedish-American National Bank of Minneapolis, and was one of the incorporators of the Security Savings and Loan Association, organized in 1887, which has a capital in excess of a million and a half of dollars. In 1894 the Northern Life Association was incorporated, and Mr. Smith was elected president. With his many qualifications, Mr. Smith has also developed a high appreciation of the inventive faculty, and has given to the building world a new article of great economic value, while transforming a waste material, which was a source of expense in its removal, into an article which is already recognized as a most valuable factor in the building world. In 1892 patents were secured by George S. Mayhew upon a composite material designed to take the place of the ordinary plastering for houses, and discerning its economic value, Mr. Smith at once secured control of the patents. This new product, which is known as "Compo Board," is made from narrow strips of wood about one-quarter inch in thickness, upon each side of which is secured, under heavy pressure and in connection with a strong and practically water-proof cement, coverings of a strong building paper, forming a material which may be nailed direct upon studding or joists, when it is at once ready for receiving the finish of wall paper, obviating the litter and dirt attending the application of plaster, and enabling the immediate occupancy of a dwelling, with none of the delay or dampness attendant upon the ordinary methods of plastering, while adding strength to the walls, and providing a protection against the penetrative power of cold weather, adding greatly to the warmth and comfort of the dwelling. This new material has been received with great favor by the building community, especially in localities where it is both difficult and expensive to obtain plasterers, or plastering material, for which no better substitute has ever been provided. Two companies are now engaged in the manufacture of compo board, one of which is located at Houston, Texas, and is known as the Southern Compo Board Co.; the factory at Minneapolis, located adjacent to the saw mill of the C. A. Smith Lumber Co., being known as the Northwestern Compo Board Co.

Mr. Smith was married in 1878 to Miss Johanna Anderson of Minneapolis, three sons and three daughters having been born to them.

In politics Mr. Smith is a Republican, and in 1892 was elected state delegate to the National Republican convention, and is at this time enjoying the honors of a state elector. In his religious proclivities he is a member of the Lutheran church.

As remarked in the outset, the career of Mr. Smith is one of a most remarkable character. A poor orphan boy, in a land whose speech was unknown, by his industry and integrity, working his way step by step toward the highest rounds of the ladder of honorable citizenship, the fraternity of lumbermen may well feel proud to claim him as a credit to the craft.

Freeman S. Farr of Minneapolis, Minnesota, is a striking illustration of heredity in the lumber business. He was born at Schroon Lake, New York, in 1845, the son of George W. and Esther (Day) Farr. His grandfather, Randall Farr, built the first saw mill in Essex county, New York, and was, as well, the proprietor of the first hotel in that county. The mill, which was of the old-fashioned type of sash upright, was located on the North Hudson, and had capacity, like all mills of that time, of but two to three thousand feet per day.

In 1855 the parents of Freeman removed to East Cleveland, where their son attended the "Shaw Academy" until the age of seventeen, when he became bookkeeper for Charles Wyman, a lumberman and manufacturer at Georgetown, Michigan. This mill had capacity for the manufacture of about ten thousand feet per day, and about one year after he entered the employ of Mr. Wyman, the young man, in connection with C. L. Storrs of Grand Haven, as a silent partner, purchased the mill, his partner soon after disposing of his interest to R. C. Luce of Grand Rapids, and the firm of Farr & Luce successfully operated the business for the succeeding two years, when Mr. Farr purchased the Luce interest, and, after operating alone for one year, sold out the business. He then, in company with his brother-in-law, Douglas M. Storrs, went to St. Clair, Missouri, where they built a saw mill on the Marimac river. The mill had capacity for sawing twenty-five to thirty thousand feet per day. After one year of successful operation, their plant was swept away by a flood, and was not rebuilt. Mr. Farr then went to Muskegon, Michigan, where he operated the plant then known as the Eldred & Farr mill. After two years he, in connection with D. M. Storrs and R. McDougal, erected a mill on Muskegon lake, under the firm name of Storrs, McDougal & Co., Mr. Farr being the "Co." This mill had capacity for cutting about sixteen million feet of lumber per season. A few years later the business was incorporated under the name of The Farr Lumber Co., of which Mr. Farr was elected president, and the mill, which had hitherto been a circular mill, was enlarged and improved by the addition of a stock gang. About this time, 1880, the Storrs Lumber Co. was organized and incorporated, and in this company Mr. Farr was also interested. This company erected a saw mill with capacity for the manufacture of 100,000 feet per day. The Muskegon Lumber Co. was organized in 1881 and built a mill on the Muskegon lake, and Mr. Farr was elected president; this mill was about the same size and capacity of the one previously mentioned. The following year the Laketon Lumber Co. was organized, and of this also Mr. Farr was elected president, and, after continuing in the management of it for about a year, Mr. Farr sold his interest to the Storrs Lumber Co. The same year, in connection with W. T. Bailey, Mr. Farr organized the Oneota Lumber Co. of Duluth, Minnesota, and was elected president. This mill had capacity for the manufacture of 65,000 feet of lumber every ten hours, besides a large quantity of shingles, the manufacture of which was carried on in connection with that of lumber. A year later Mr. Bailey disposed of his interest to G. F. Sinclair and S. B. Barker of Chicago, the mills remaining under the management of Mr. Farr for about two years, when he disposed of his stock in the Muskegon Lumber Co., and invested it wholly in the stock of the Oneota Co., the property of which, a year later, was entirely destroyed by fire. He now, in connection with William Brown, R. W. Jones and B. Misner, purchased the S. K. Martin mill at Duluth, and removed it to Minneapolis, where the De Sota Lumber Co. was formed, of which Mr. Farr was vice-president. This mill had capacity for manufacturing 150,000 feet per day. About one year later the interest of Mr. Brown was purchased by Hackley & Hume of Muskegon, and the business continued for another year without change, until Mr. Misner disposed of his interest to H. C. Akeley, and a reorganization was effected under the name of H. C. Akeley Lumber Co., under whom the mill was enlarged and improved to a capacity scarcely exceeded, if equaled, by any other mill in the world, its output for 1895 being 92,000,000 feet. While the company does a large amount of logging for the stocking of the mill, the major portion of their cut is from stock purchased from the Itaska Lumber Co., elsewhere mentioned.

In his youth Mr. Farr was connected with one of the smallest mills of the country; we have traced his career through successive stages of increasing manufacture, until we leave him in connection with one of the largest operations and mills of the nation. We found him in a small mill in the east in the days when the demand for lumber was comparatively small and confined to the east; we leave him in the management of a mammoth operation in the great west, in a city which is the recognized center of the leading lumber industry of the day.

Mr. Farr was married in 1868 to the daughter of C. N. Storrs of Muskegon, Michigan, one son and two daughters being the issue. The son, Raymond Storrs Farr, is president of the Steichen Lumber Co., and resides at Minneapolis. The daughter, Mabel, is the wife of R. Milton Barnes, an attorney of Chicago, Illinois. Miss Maude still resides with her parents.

Mr. Farr is a Congregationalist in his religious affiliations, a member of the Masonic fraternity, and a Republican in politics.

C. F. Welles of the former firm of Gardiner, Batchelder & Welles of Lyons, Iowa, but now of Minneapolis, was a native of Connecticut, having been born at Wethersfield, in that state, in 1843, and enjoying the facilities of the common school, until, reaching the age of seventeen, he, in 1860, turned his face westward and found employment in his brother's hardware store at Fulton, Ill., where he remained until the breaking out of the war of the rebellion, when, in 1862, he enlisted in the Mercantile Battery of Chicago and went to the front, and after one year of honorable service, in which his health failed him, he received an honorable discharge, and returned to Fulton. Upon his recovery from the sickness which had incapacitated him for military service, he, for two years, took charge of a store, and then spent another two years in a mercantile employment in the east. Returning to the west, he entered the lumber office of C. Lamb & Sons at Clinton, Iowa, and obtained in that most practical school a knowledge of the lumber business in its various details. Again going east, he spent four years in the hardware business at New York, but the attractions of western life prompted a return to more congenial activities, and he became associated with Messrs. Gardiner and Batchelder in the formation of the firm of Gardiner, Batchelder & Welles, extendedly mentioned in the history of the saw mill industry of Lyons. With the winding up of the affairs of the company, Mr. Welles removed to Minneapolis, and, in connection with E. P. Welles and E. L. Carpenter of Minneapolis, and C. F. Alden of Clinton, Iowa, organized the Brainard Lumber Company, with a capital of $500,000, and a saw mill at Brainard, Minn., containing two bands and one gang, of the most modern type, and with capacity for cutting 225,000 feet of lumber in the ordinary ten hours' run, and an annual production of 60,000,000 feet of lumber and 8,000,000 shingles, with 10,000,000 lath, day and night run.

Mr. Willard G. Hollis is a man whose business career is a decidedly interesting one, showing the shrewdness, executive ability and competency which can be attained when one is so determined. Among all the industries that are carried on in the flourishing city of Oshkosh, Wisconsin, none succeed so well as the ones that are carried on by practical men. An instance in mind is the success attained by Willard G. Hollis, one of the prominent and influential citizens of that city. He was born at Brighton, Boston, Mass., in 1859, and is a son of Albert and Mary Hollis, both of whom were descendants of good old colonial stock. After finishing his course in the high school, Willard G. Hollis entered the school of technology at Worcester, Mass., and there studied engineering for four years, after which time he spent one year at the locomotive shops of the Boston & Albany railroad. In the fall of 1878 he engaged with W. D. Washburn & Co. of Minneapolis, occupying a position in their lumber office, and when this company merged into the Washburn Mill Company, he was elected secretary. W. D. Washburn was president of the Soo line, and in 1887 a line of lumber yards was started. E. L. Arnold had the supervision of the outside business, and Mr. Hollis devoted his time and experience in the office. Originally there were about twenty yards, and it was through Mr. Arnold's suggestion that this line of yards was established, he being the traveling salesman for the Washburn Mill Co. Their most eastern yard was at Paynesville, Minn., and extended to Oaks, Dakota. In 1889, when the Washburn Mill Co. sold out their flour interests to an English syndicate, they then desired to also close out their retail lumber business. Mr. Arnold and Mr. Sawyer of La Crosse, Wis., purchased the business, and the firm has since been known as Sawyer & Arnold. Mr. Arnold organized the Northwestern Lumber Association in 1890, and soon afterward Mr. Hollis was made secretary. He, later, introduced a plan of insurance limited to those only being members of the association, which would have a tendency to cement the members more closely. He submitted his plan to the president, and, it being regarded as thoroughly practicable, he devoted about six months to the study of the subject of fire insurance. The result of this was that a mutual plan was formulated, a meeting of the members was held on the 2d of February, 1894, and on the 2d of March of that year they commenced business. Our subject was elected secretary of the organization. Mr. Hollis was married in 1882 to Miss Florence Hunter, and they are the parents of one son. Mr. Hollis is a member of the Masonic order, thirty-second degree, and a Shriner.

Judson E. Carpenter now of Minneapolis, but for many years connected with the sash door and blind manufacture at Clinton, Iowa, was born in Chanango county, New York, 1835, the son of E. K. Carpenter, a farmer of that section, in which occupation he was assisted by his son during his young manhood, in the intervals between school duties. At the age of twenty years, Judson came to the west, and deciding to make it his future home, purchased a tract of prairie land in Illinois and for six years carried on farming, subsequently he removed to Rochelle, Illinois, where he engaged in the coal business which he continued for six years, in connection with extensive dealings in live stock. On closing out his business at Rochelle, Mr. Carpenter removed to Clinton, Iowa, where on the first of January, 1869, he became connected with the firm of Curtis Brothers, which two years previous had been established, for the manufacture of sash, doors and blinds, and the firm became Curtis Brothers & Co., and so remained until 1881, when the company was incorporated, the name remaining unchanged, and at this time Mr. Carpenter was elected president of the company. In 1879 the company purchased a large tract of pine lands in the counties of Taylor and Price, in Wisconsin, and soon after commenced lumbering, entering into arrangements with D. J. Kennedy (who erected a saw mill at Rib Lake) to cut, haul and saw, taking the logs from the stump and delivering to them at Clinton such portion as was suitable for the uses of their factory, shipping the residue to such markets as it was best suited for. This tract, supplemented by later purchases, was exhausted in 1895, the business of the corporation having in the meantime called for an annual consumption of 10,000,000 feet, a considerable portion of which was purchased from the mills of Clinton and other manufacturing points, the log stocks for which were cut upon the waters of the Chippewa and St. Croix rivers. In 1882 the company established a distributing house at Minneapolis for the accommodation of their large trade in the northwest, and this was known under the designation of Adams, Horr & Co., of which firm Mr. E. L. Carpenter, (son of the subject of our sketch), became a partner in 1887, soon after which the firm of Carpenter Brothers & Co. succeeded to the business, in which in 1892, they were joined by Judson E. Carpenter, the firm name continuing the same. This firm acquired large tracts of pine lands on Prairie river of northern Minnesota, and during the same season commenced the erection of a saw mill on the north side of the river at Minneapolis, with capacity for the manufacture of about 30,000,000 feet per annum. About this time the sash, door and blind business was disposed of to the Curtis Gale Co. of Wausau, Wisconsin. In December, 1894, Chauncey R. Lamb of Clinton, Iowa, purchased an interest in the business, and the name of the corporation now became Carpenter, Lamb & Co., Judson E. Carpenter, president; S. J. Carpenter, vice-president; C. R. Lamb, secretary and Eugene J. Carpenter, treasurer. Mr. Judson E. Carpenter is also largely interested in the Minneapolis Logging Co., and Brainard & Northern Minnesota Railway Co., with office in the Lumber Exchange building, Minneapolis.

Mr. Carpenter was married in 1861 to Miss Olivia Detwiller of Rochelle, Ill., five sons and two daughters being the issue. Of the sons, Elbert L. is a member of the firm of Shevlin-Carpenter Co., Eugene J. and Samuel J. being connected with the house of Carpenter, Lamb & Co., a younger son, Frederick H., being at this time a student at Williams College, Williamstown, Mass. A daughter, Miss Maude, graduated from Smith's College, Northampton, Mass., in June, 1896. Mrs. Carpenter died in March, 1884, deeply mourned by a large circle to whom her gentle life had warmly endeared her.

Mr. Carpenter, in 1885, married Mrs. E. M. Howard of Davenport, Iowa. Mr. Carpenter is a member of the Masonic fraternity, and has always held an enviable position in the esteem of each community in which his lot has been cast, as a man of probity, intelligence, public spirit and business acumen. His son Samuel, heretofore mentioned, as also his son Eugene J., are graduates of the Clinton high school, and of the University of Michigan. Eugene J. was married in 1894, to Miss Marette Lamb, daughter of La Fayette Lamb, Esq., of Clinton, Iowa.

John F. Wilcox of Minneapolis was born in the state of Ohio in 1847, the son of David G. and Hanna C. (Whitney) Wilcox. The father, David, was a member of the well-known firm of the Weary-Snyder & Wilcox Manufacturing Co. of Akron, Ohio, whose manufacture of sash, doors and blinds for many years supplied those necessary adjuncts to the building interests of northern and central Ohio. At the age of fifteen years John began an apprenticeship in the factory, becoming familiar with the details of the manufacture of the various articles of factory make which entered into the building art.

At the age of twenty years, he went west and found employ with the firm of Ward Brothers & Wentworth of Minneapolis, who were engaged in the same line of manufacture, but with whom he remained but a short time, when he found more permanent employ with Wheaton, Reynolds & Francis in the same line of business, and with whom he remained for two years and until the withdrawal of Mr. Francis, when Mr. Wilcox became a member of the firm, which now became Wheaton, Reynolds & Co. In 1885 Mr. Wilcox sold his interests in the business to his partners, and began to operate upon his individual account, erecting a factory which combined manufacturing with a retail lumber business, being thus enabled to supply all the requisites of building contractors, including planing, mouldings, and sash, doors and blinds, and until the great fire of 1893, which affected him as well as many others, handled as high as 25,000,000 feet of lumber yearly. He was married June 13, 1871, to Miss Emma E. Clement of Minneapolis, three sons and two daughters having been born to them, of whom Harry E., born in 1873, is married and fills a responsible position in the extensive business operations which are carried on by his father. Archa E., born in 1876, is a student at the State university of Pennsylvania at Philadelphia, in the department of medicine, while Myrtice E. and Ralph D. are students at the Minneapolis high school. Beatrice, the younger daughter, is now eight years of age. Mr. Wilcox is a member of the Masonic fraternity, being affiliated with Cataract Lodge No. 2 of Minneapolis, and with Zurah Temple A. A. O. N. M. S. In politics Mr. Wilcox is a Republican, but has never entertained any political ambitions. He is a gentleman who stands high in the estimation of the public as a business man and citizen.

William Irving Carpenter of Minneapolis, Minnesota, was born at Frankfort Station, Illinois, in 1862, the son of Josiah and Frances M. (Harendon) Carpenter. His father was an attorney-at-law, and occupied a prominent position in Will county, having filled the office of county treasurer, together with other positions of responsibility. William was educated at the common and high schools of his native town, and to so good effect that at the age of sixteen he passed examination as a teacher and was granted a special permit, his extreme youth alone preventing his obtaining the usual certificate, his qualifications to teach being unquestioned.

For the next three years he acquitted himself creditably in this position, when attaining the age of nineteen years and desiring more out-of-door freedom, he entered the employ of J. C. Garner, a lumber dealer of Waverly, Iowa, who at that time was running a chain of lumber yards in various portions of the state of Iowa, and was placed in charge of a yard at Sumner in that state. Two years later he resigned his position to accept the general agency of the house of Gardner, Murphy & Co. of Boston, who had established a line of Creameries throughout a large section of Iowa, and were extensively engaged in the purchase of eggs and other farm products, for shipment to their headquarters at Boston, and in this line he continued for eight years, when he returned to the lumber business, purchasing the retail yard of Havens & Emmons at Fredericksburg, Iowa, and the following year added a second yard located at Boyd, Iowa. In 1894, his brother Chester H. Carpenter became interested with him and the firm name became W. I. Carpenter Lumber Co. with the main office at Fredericksburg.

In 1892 Mr. Carpenter went to Minneapolis and in company with Mr. A. J. Flournoy established the firm of Carpenter & Flournoy for the handling of the Douglas fir and red cedar of the Pacific coast, in addition to the native lumber product. For a few years previous the manufacturers of the Pacific coast had been making strenuous efforts to introduce the redwood of California and the fir of Washington, together with the excellent shingles of the mammoth cedars of the west in competition with the products of the eastern forests, an endeavor which has for many years been followed up with indifferent, but ever increasing success, the trade having at this time reached large proportions. The success of the firm was such that in 1896 they became interested in a large saw and planing mill together with two shingle mills at Everett in the state of Washington, shipping their product to their wholesale yard located on Twenty-third street, corner of North and River streets, Minneapolis, with a large warehouse at the Minnesota junction, half way between Minneapolis and St. Paul, which is the transfer point for the railroad system of this section, and which also enjoys the advantages afforded by an electric road. One of the shingle mills of the company has a capacity for cutting 250,000, and the other 150,000 shingles per day. Carpenter & Flournoy were the pioneers in the introduction of Pacific coast stock to the markets of the north, and their success in the face of apparently insurmountable obstacles, is but an earnest of an extensive use of this material in the not distant future, and is in part an answer to the oft-repeated question as to the lumber supply of the future, with the decadence of our local forests. The firm are the northwestern agents for the sale of the extensive product of the mills of the Daniel Shaw Lumber Company of Eau Claire, Wisconsin. In 1893, Mr. J. C. Hughes became interested in the company, and a year later Mr. Flournoy disposed of his interest, but the business is continued under the old designation, and is one of the most successful of the many large operations of that great lumber market. Mr. Carpenter is a member of the Masonic fraternity and has advanced to the higher degrees of Temple and Shrine. He is a Republican in his political affiliations. He was married in 1888, to Miss Myrtie Houghton of Sumner, Iowa, and three sons have blessed the union.

Healy C. Akeley.—H. C. Akeley, whose name has for many years been closely identified with the manufacture of lumber and shingles at Grand Haven and Muskegon, Michigan, and more recently at Minneapolis, was born at Stowe, Vermont, in 1836. He was the son of George and Electa Coffin Akeley, the old colonial stock of his ancestry being originally of English extraction. At the age of twenty years, Mr. Akeley, having received a good education, entered the law office of Paul Dillingham at Waterbury, Vermont, and after spending one year as a student with that gentleman, entered the law school at Poughkeepsie, New York, graduating from which he went west, settling at Grand Haven, Michigan, where he opened an office for the practice of his profession, and was thus engaged at the breaking out of the war. In 1863 he enlisted in the Second Michigan Cavalry as a private, and serving until the close of the war, returned home with the honors attaching to the position of Adjutant. Resuming the practice of law at Grand Haven, he was brought into immediate contact with lumbermen whose business formed no inconsiderable portion of his practice before his enlistment. In 1871, he became interested with Charles Boyden in the manufacture of shingles and lumber, and the manufacture of the firm at times amounted to about one million shingles per day, and with a constantly increasing output, the firm continued in business for fourteen years. In 1880 the Grand Haven Lumber Company was organized, and three mills already in operation were purchased, and two new ones erected by the company, which was now composed of H. C. Akeley, S. A. Irish, A. J. Emlaw and Charles Boyden, and the operations of the company comprised the manufacture of 150,000,000 shingles and 60,000,000 feet of lumber per annum, the log stock being obtained from Flat and Rouge rivers and Fish creek, all tributaries of Grand river. In 1882 the Roscommon Lumber Company was formed by Messrs. Akeley, Boyden, S. B. Barker, George Sinclair, Thomas Morris and C. B. Field, the four last named being Chicago lumbermen. This company controlled a large body of pine lands in Roscommon and other counties tributary to the headwaters of the Muskegon river, and operated upon an extended scale, floating their logs to Muskegon, where they were sawed. Mr. Akeley had before this time became so deeply interested in the lumber business that he had in 1880 discontinued the practice of law, and devoted his entire time to his mills, logging operations and lumber manufacture. He continued to be one of the leading operators in western Michigan for many years, and until the rapid decadence of the pine supply admonished him to seek new fields of operation, and in 1887 he removed to Minneapolis, Minnesota, where he organized the Itasca Lumber Co., in which the well-known firm of Hackley & Hume of Muskegon, and W. T. Joyce of Lyons, Iowa, are associated with him. The operations of this company are in Itasca county, Minnesota, which is watered by the Mississippi river and its tributaries, their cut being about 75,000,000 feet of logs per winter, which, floated down the Mississippi, find market at Minneapolis, which has become a prominent lumber center, both for manufacture and distribution. In 1889 Mr. Akeley organized the H. C. Akeley Lumber Co. of Minneapolis, with a saw mill at Minneapolis, which contains one band and one circular together with a stock gang, with which the annual output of lumber reaches 90,000,000 feet per year. Mr. Akeley was married in 1869 to Miss Hattie E. Smith of Grand Haven, the issue being two children, of whom one died at the age of eleven years. During his residence at Grand Haven, Mr. Akeley built him an elegant home, which in 1887, he presented to the Episcopal church of that city, and it has since been known as the "Blanche Hall Akeley Institute for Girls," and is doing a noble work in the education of girls for the practical duties of life; many of the scholars reside in the building.

Mr. Akeley is president of the Flour City National Bank of Minneapolis, and is also interested in many enterprises of a public or private nature. He is a Republican in politics, but has never aspired to public office, his military record and his large and constantly expanding business being in themselves sufficient to satisfy his ambitions. He is highly respected in each of the communities in which he has taken up his residence, and no less in the business circles with which he has held such close and intimate relations for more than three decades, and among whom he is esteemed among the most enterprising and reliable members.

Stephen Crosby Hall, late of Minneapolis, Minnesota, was born at Penn Yan, Yates county, New York, August 16, 1834, the son of Jonathan and Anna (Whittaker) Hall. His father was a man of considerable prominence and wealth, and as a deacon in the Presbyterian church, held a position of high esteem in the community. His immediate ancestors were natives of Passaic, N. J. Stephen was educated in the public schools of his native town, graduating with high honors, especially in mathematics and in practical civil engineering. At the age of nineteen years, he accepted a position in New York city as clerk in a store, being his first introduction to business life, and, as well, his first absence from the parental roof.

On reaching his majority, he turned his face westward into the forests of Michigan, which opened to him an abundant field for the practice of his profession of surveyor, and in its prosecution he located many excellent tracts of pine lands. About 1856, in company with his brother, Moses Hall, he erected a saw mill on White river, at a place then known as "Mears," but subsequently changed to Whitehall, a combination of the name of the river and of the enterprising young men, the brothers Hall. One year later the mill passed into the hands of Thompson & Coble, by whose name it was subsequently designated. Upon disposing of the mill, Mr. Hall formed a copartnership with ——— Bullock, and conducted a mercantile business, and soon after, being elected county treasurer, removed to the county seat, Muskegon, at that time but a mere hamlet, which, in 1864, was surveyed and properly platted by Mr. Hall, who, meantime, left the conduct of the mercantile operations at Whitehall to fall upon his partner, Bullock. The office of county treasurer was continued to him for a second term, at the end of which he erected a saw mill at Muskegon, and later purchased the Chauncey Davis mill, and organized the S. C. Hall Lumber Company, which was numbered among the more extensive lumber operations at that point until 1888, a period of more than twenty years' continuous operation, during which period the company found it necessary to build several large barges for the transportation of their mill product, the first and largest of which was named after himself, Stephen C. Hall. In 1880 the company erected a new and larger mill, containing a circular and gang, with a yearly capacity for manufacturing 18,000,000 feet of lumber per season, together with a proportionate quantity of shingles and lath. About this time Mr. Thomas Shevlin (a sketch of whom appears elsewhere) became connected with the company, both in a business and social capacity, marrying, as he did, a daughter of Mr. Hall, and in 1882 Mr. Hall became interested in the pine lands of Minnesota, and, in connection with Col. James Goodnow, formed the North Star Lumber Company of Minneapolis; this company, however, operated but one season, and in the fall of 1885, in company with Mr. P. Ducey and Mr. Shevlin, formed the Hall & Ducey Lumber Company, which, in 1886, was incorporated under the laws of Minnesota, Mr. Hall being elected president and general manager, Mr. Shevlin secretary and treasurer. In the fall of the same year the Hall & Shevlin Lumber Co. was organized, and did the sawing for the Hall & Ducey Co. Of this company Mr. Hall was president and Mr. Shevlin manager. This company erected a saw mill, equipped with one circular, one gang and a band saw, and had capacity for the manufacture of 40,000,000 feet per annum; during the season of 1888 the pay roll of these two companies averaged $18,000 per month. In August of this year, while attending to affairs at the mill, Mr. Hall made a misstep and was precipitated a distance of twenty feet, striking upon a stick of timber, and was taken up lifeless, leaving a wife, three daughters and one son to mourn his untimely end.

Beside Mr. Hall's connection with the lumber business, he, in 1878, purchased an iron mine at Cloquet Falls, in Northern Minnesota, which he operated for several years with profit. While residing at Muskegon, Mr. Hall was an active member of the Congregational church, to which he was a liberal contributor, assisting also in a liberal manner to the building fund of the handsome church edifice of that city. On removing to Minneapolis, he associated himself with the Westminster Presbyterian church, to which he became an equally liberal contributor, and was remarkable for his consistent piety, as exhibited in an exemplary and useful life, being a warm friend and counsellor of its pastor, Rev. Dr. Darrow. He was liberal in his benefactions to other churches and worthy objects, his benefactions being characterized with complete freedom from ostentation or public notoriety. In his business life he commanded the respect of all with whom he had dealings. Conservative in his views, his opinions were much sought, and held in the highest regard in mercantile circles. At his death the Minneapolis Lumber Exchange paid tribute to his character in the following resolutions:

> In the death of Mr. S. C. Hall, the Lumber Exchange has lost a member whose earnestness and ability made him leader in our council, and whose kindness of heart and uprightness, suavity of character and private virtues had endeared him to all with whom he came in contact. Brief was his residence among us, but he had come to be regarded as an important element in business enterprises, and as a strong support to the moral forces of the country.

Mr. Hall was married in 1856 to Miss Alice A. Clark of Grand Haven, Michigan, who survives him. In politics Mr. Hall affiliated with the Democratic party, although not taking an active part in politics for many years prior to his decease. In his death the community recognized the loss of a useful and upright man, who could ill be spared, and whose place it would be difficult to fill.

John De Laittre and Howard De Laittre have for many years been prominent citizens and lumbermen of Minneapolis. Charles De Laittre, the father of John, was born at Castine, Maine, February 2, 1797, and on the 9th of January, 1827, he married Rosalie Levalle Desiles, who was born August 9, 1799, at Mamoine, Maine. They were both of French families. Four children were born to this couple: Charles Louis, now a resident of Minneapolis; John, the subject of this sketch; Francis, and Mary Ann.

The grandfather of our subjects, John and Howard M., was born in France, near Paris, and came to America in the latter part of 1789. Two years before leaving France, he was married to Harriet Marie at Vichy, about three miles from Paris, a much celebrated wine district. There were eight children born to them, including a Charles and Joseph B. Charles, Jr., was the father of John De Laittre; Joseph B. the father of Howard M. He died at Ellsworth, May, 1867, at the age of fifty-seven years. This Charles De Laittre was superintendent of the construction of saw mills at Mud Cove, Partridge Cove, and Skilling river. That was while France owned Maine. Charles De Laittre, Jr., was for many years in the employ of Col. John Black, who had been sent out from England to manage the famous Bingham purchase, a great tract of timber land reaching the sea near Union river. Col. Black built mills and ships, and founded the city of Ellsworth. De Laittre was a good penman and accountant, and became a superintendent of the new works of development, going into the pineries in winter to scale logs, and superintend the various lumbering operations.

Lewis du Pee Desiles was among the early French fugitives, and he married Mary Googin, a Scotch lady. They had born to them seven children, two daughters, Rosalie Van Bartel Desiles, married Chas. De Laittre, Jr., and was mother of our subject, John. Sarah Desiles married Joseph B. De Laittre, who is the father of Howard M. De Laittre.

On June 27, 1789, the first battle of the French revolution was fought between the Royal troops and

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the citizens. Charles De Laittre ofttimes related to his children his impressions of the last scenes of the revolution which he witnessed in Paris after the troops had been worsted and the French guards had joined the people; the Bastile was the first object of popular hatred and fury. He was an eye-witness to the attack on the gates of this great, and to the people, fortress prison, then he fled the city, deserting the command under which he had served, when that command had joined and fraternized with the revolutionists. Such was the fury of the enraged people and soldiers that they procured great beams of timber and broke down the gates, then entered the loathsome prison and liberated all the prisoners, secured the person of the governor, who had been held in detestation as an oppressor of the people, dragging him out, and not leaving one stone standing upon another, they severed the head from his body and carried it on a pole in triumph through the streets of the city of Paris.

Then this young soldier laid aside his uniform and deserted the military organization that had proved traitorous to the government it had sworn to defend. He at once repaired to Vichy (or Vinzy), found his wife and child, and hearing of a number of his friends who were in Havre, about to leave for America, he at once started for that place, which he reached in safety.

John De Laittre was born at Ellsworth, March 5, 1832. In 1841 his father bought and moved to a farm two miles from the town; and here for many years the family dwelt, blessed by the kind care of their father, and the tender and wise teachings of their sainted mother. John De Laittre's boy life was that of thousands of farm boys of New England, with work on the farm in summer, and in winter attending, for a few months, the district school.

Young De Laittre was allowed one short term at the village high school, and this, with a few months at the district school each winter, until he was eighteen years of age, comprised all the schooling his parents were able to give him. During this time he was fond of reading books of history and travels, and it created a desire to see and know something of the world. In the early spring of 1848 he remarked to his father that he would not wear his life out on a New England farm. By mutual consent of his parents, he entered the employ of Capt. Smith and went on a fishing expedition. It was a new experience, and for four years he followed this business. Often they were visited by English cutters, but were never molested. The third year he sailed for the coast of Labrador, and obtained a load of fish. This was an extremely interesting voyage. The vessel was of one hundred and fifty tons burden, with a crew of eleven men. They lay for two months in a small, close harbor—called on the charts "Broad Oar"—fastened to the two adjacent ledges, and did their fishing in small boats. It was light all night, so that one could read coarse print. The days were so long that it was almost tiresome. In this country there are no trees or verdure of any kind, except a moss on the rocks. In the moss and crevices of the ledges there bloomed beautiful white and blue violets, almost under the disappearing snow. On July 4, 1850, they celebrated the day by abstaining from work, and an excursion inland.

On the return voyage the vessel visited the Magdalen Islands, and they saw large quantities of herring taken in seines.

During the summer of 1851 De Laittre went fishing on the Grand Banks, off Newfoundland. This fishing ground is in the direct route of the passenger steamers to Liverpool, and fishing vessels are in great danger of being run down. Fog prevails to such an extent that for weeks the sun is hidden from view. During this summer they all came near being lost.

Returning from this voyage in the fall of 1851, De Laittre decided to go to sea the following winter. As he had been on the ocean for four seasons, he was a good sailor, and he had decided that his would be a sea-faring life. So, in September, 1851, he shipped on board a brig of four hundred tons, sailing out of New York. In the course of the winter's cruise she visited the Bermudas, Jacksonville, Barbadoes and San Domingo, returning in March, 1852, to New York with a load of coffee. Sailing again on a second cruise, she returned to Boston in the latter part of June. On this trip De Laittre kept the reckoning of the ship, studying navigation all that he could, and when the vessel passed Cape Cod his reckoning was but a few miles out of the way.

Returning home, he had an opportunity of conversing much with his mother as to his future course. At that time many people from Maine had gone to California; finally, one day he told his mother that he had come to the conclusion that he must do one of two things, viz., go to California and make a long stay, or go away again to sea, but, if the latter course was chosen, it would undoubtedly be his future profession, and he left the matter entirely with her and would be governed by her wishes. For several days the anxious mother considered the subject in all its bearings, for she knew her son would abide by her decision. At length she said, after many prayers to God to decide aright, that she believed she saw her way clear, and that, hard as it was to have her son depart from her into a strange land, she had decided he might go to California. On September 16, 1852, with wardrobe in complete order, and a little Bible, her gift, he bade the family a long good-bye, and, arriving in New York, purchased tickets to Aspinwall, via the opposition, or Vanderbilt line, and, on September 25, sailed. After eight days' passage, they arrived at Aspinwall. The Panama railway had been commenced and was running out about fifteen miles to the Chagres river. Here they were packed on the native boats as thickly as they could be seated, in the broiling sun, and were poled up the stream against a strong current, it being the rainy season.

After waiting at Gorgona for transportation by mule trains and donkeys, for which they had paid at Aspinwall, De Laittre became impatient and declared he would foot it across to Panama, and, going around among his companions, he found two plucky fellows who said they would join him in the tramp. The next morning they started out to cross the Isthmus of Darien. At times the sun would almost melt the travelers, and in a few moments down would come the rain in torrents. The streams were swollen and in the valleys and water-courses the mud was knee-deep. It was not long, however, before they came to the mountains. They had no difficulty in keeping the trail, as they had been used for hundreds of years. Partaking of a hasty lunch at noon, they passed several native villages, were assailed by dogs, and frequently encountered dark and sullen looks of the natives, but no one molested them, and they cheerily tramped on. As darkness approached, they saw a glimmering through the trees, which proved to come from a native village. Making for the nearest hut, they entered uninvited, and with a few dimes purchased some fruit, which, with crackers, made their supper. Soon the members of the family climbed into the upper part of their hut and retired, leaving their guests on the ground below, taking turns watching, and too tired to sleep. Toward midnight it became chilly, and, although rolled in blankets, they were unable to keep warm, so concluded they would build a fire. Directly they heard a rumpus overhead, and down came a negro, who threw the fire right and left, uttering all sorts of imprecations. We concluded the smoke of the fire interfered with his sleep, there being no chimney. It being so cold, they could stand it no longer, and gathered up the brands and started the fire; and again the native commenced an uproar, and one of the party grabbed him and pointed a revolver at his head, then such a scrambling and howling arose as to arouse the whole community, and the guests, fearing further trouble, started on their journey. They were fearful the natives would follow, but they did not. At midday they passed the water-shed and the streams were running in the direction they were going, and they knew they were nearing the long-looked for Pacific. At 4 p. m., as they climbed a hill, and rounded the top, behold! almost at their feet, and distant about five miles, lay the far-famed city of Panama. That was the most beautiful sight De Laittre had ever seen, and he has never forgotten the prospect. Ships and steamers lay anchored in the bay, and in the foreground stretched the ancient city. By night they were in the city, at a hotel, thoroughly tired, but exceedingly proud of their achievements. It was fully a week before the rest of the party came across. This trip across the isthmus at that time, and under such circumstances, by three boys, two of whom had never been from home before, has always left an impression.

In the city of Panama all nations were represented, and all were bent on reaching that goal of all their hopes—San Francisco. As soon as the Maine boys could do so, they purchased their tickets. At last came the glad day when they sighted the Golden Gate and entered the bay of San Francisco.

De Laittre was anxious to find his school-mate, so, bidding his companions good-bye, he left on a little steamer for Stockton, and from there he went to North Branch, Calaveras county. He found his friend in his miner's cabin. This was November 12, 1852. At that time there was much excitement in that country around the new rich diggings that had been found at Murphy's Camp, a location on the head waters of the Calaveras river, well up in the Sierra Nevada foot-hills. His friend knowing that De Laittre was coming, had taken up a mining claim on a gulch near the newly discovered mines, and posted up the usual notices required by the mining laws.

After two days' rest, Jordan and De Laittre started for their mining camp. The proudest day of his life was when they had finished supper and dried and weighed the little gold dust (about eight dollars' worth), the result of the first day's work.

There is something about a miner's life, a certain buoyant, hopeful feeling, a constant hoping, a certain something that cannot be explained. The beautiful Sierras are the last resting place of many a miner who has died far from home and relatives, and up to the last has been hopeful of ultimate success.

The claim did not remunerate the two workers largely, and by Christmas time their funds had gradually disappeared. The outlook was dark. It seemed impossible to pull through the winter. Men all about were getting discouraged, and provisions were growing scarcer daily, and none coming in. It was plain that some must leave, or all would starve. At last De Laittre's thoughts turned instinctively to the ocean, and he thought if he could get to San Francisco he would try sea-faring life again. Just over the hill was a small steam saw mill, owned by some eastern men. The day after Christmas De Laittre walked over to the mill and saw a man carrying away lumber. Inquiring for the owner, he replied that he was the man. De Laittre said he wanted work, and the proprietor, a Mr. S. B. Gilman of Bangor, Maine, learning that De Laittre was a state-of-Maine boy, employed him and gave him a thorough business training. This was in December, 1852, De Laittre becoming his head clerk and chief manager, at the time he sold his mill and returned home. This was in 1854. The parties who purchased the property were not familiar with the business, and Mr. Gilman said he would sell his manager with the property, and he would guarantee he would manage as well as he could. So they negotiated with him at $2,000 per annum. This mill was moved twice, and had, in seven and a half years, four different owners, each one closing a contract with the manager. He liked the business, and in seven and a half years laid up several thousand dollars.

In 1859, having accumulated several thousand dollars, De Laittre invested it in the Canal or Water Company, and, at the solicitation of the president, he entered their employ, taking charge of part of the lines of construction, and later acting as water agent, having under his control several miles of canal. He sold water to miners, collecting on his line about two thousand dollars weekly. This was at that time considered one of the best pieces of property in that part of the State. The dividends monthly on De Laittre's stock, together with his salary of $200 per month, gave him a good income. In May, 1860, in response to a letter from his mother, he sailed from San Francisco to his home. The meeting between the mother and the long-absent son was joyful indeed; but on October 18, 1860, she died.

In November he bade his father, brothers and sisters good-bye again, and stayed with new-found friends in Conway. He left Conway December 20, with the understanding that he was to return to California, and, within six months, close up his business and return to her who was now his promised wife. He sailed from New York December 26, and in due time arrived in San Francisco, and in a short time he was back in the mountains again, but found it was not an easy matter to sell his property and leave California. He finally exchanged, and purchased an interest in a well-established mercantile business, and decided to stay a few years longer.

May 16, 1865, he sailed out of the Golden Gate, and arrived safely in New York about the middle of June. Telegraphing Miss Eastman, he met her a few days later in Boston—a happy meeting, after a separation of nearly five years. Their marriage occurred at the Eastman mansion, July 18, 1865. Leaving New Hampshire in September, they soon arrived in Minneapolis. De Laittre connected himself with the woolen and flour manufacturing firm of Eastman, Gibson & Co., and remained a member until 1869, when he sold out. Their woolen mill has since become famous, blankets made there having taken the first prize at the Centennial Exhibition of 1876. Still the business did not pay, it being extremely hard work to compete with eastern-made goods, and he never worked harder for any three years than he did while a member of this firm to make it a success.

Soon after leaving the flour and woolen business, he engaged in the manufacture of lumber, and for more than twenty years remained in this industry. In earlier years the firm was known as Eastman, Bovey & Mills Co. Later it was incorporated as the Bovey-De Laittre Lumber Company, Mr. De Laittre being president. The product is 25,000,000 feet per annum, this being one of the principal industries of the city and state. The mills of this city alone manufacture upwards of 300,000,000 feet per annum.

In April, 1877, Mr. De Laittre was nominated and elected on the Republican city ticket as a candidate for mayor.

In the year 1879 he was appointed by Gov. J. S. Pillsbury as state prison inspector of the penitentiary at Stillwater, and continued in this position about seven years, having been re-appointed by both Gov. Pillsbury and Gov. Hubbard. In 1887, feeling he had served the State long enough, he resigned.

Mr. De Laittre has for several years been one of the trustees of the Farmers' and Mechanics' Savings Bank.

In the spring of 1884 Mr. De Laittre accepted the position of president of the Nicollet National Bank, and continued as president of this institution until December, 1888. On Christmas day of 1888, with his daughter Corinne, he left home, and, joining a party of twelve Minneapolitans, started on a journey to Egypt and up the Nile to the First Cataract. They sailed from Cairo January 22, and made the three weeks' tour on one of Thomas Cook & Sons' steamers. Leaving Egypt about March 1, by Ismailia and the Suez canal, they took steamer at Port Said for Palestine, visited Syria, and the cities of Damascus, Baalbec and Beyrout, going thence to Constantinople, and returning to Europe by the way of Athens, and landing in Italy April 1; sojourning during the month of April in Rome, Naples and Florence, they arrived in Paris May 1, and witnessed the opening ceremonies of the Great Exposition (1889). Later in the season, having been joined in Paris by his wife and son, they spent the summer traveling in Europe, returning to this country and home October 15, 1889, after an absence of ten months.

CHAPTER XXXVII.—WINONA, MINNESOTA.

RISE AND PROGRESS OF ITS MILLING INDUSTRY.—LATER DEVELOPMENT.

THE first mill at Winona was erected in 1855 by Highland & Wycoff, being sold soon after to Porter & Garlock. This was a very large mill for the day, being a mulay and circular, the combined production of which was twenty-five to thirty thousand feet daily, a quantity until this period unheard of in the manufacture of lumber. This mill at a later day has been known as that of the Empire Lumber Company, having been frequently rebuilt, until in 1886 it gave place to a new structure containing two band saws, and two gangs, with cutting capacity of 200,000 feet daily, or an aggregate of 30,000,000 feet of lumber, 17,000,000 shingles and 10,000,000 lath. The Porter & Garlock mill was destroyed by fire in the spring of 1858 and in the spring of 1860 the Garlock interest was purchased by Charles Horton and Andrew Hamilton, and the firm of Porter, Horton & Hamilton operated until 1866, when Porter sold his interest to the other partners, and Horton & Hamilton continued the business until 1880, when Mr. Horton became sole owner and in connection with Ingram, Kennedy & Co. of Eau Claire, organized the C. Horton Lumber Company, of which in 1881 Dulaney & McVeigh of Hannibal, Mo., becoming associated, the Empire Lumber Company was organized, absorbing the C. Horton Lumber Company.

Upon withdrawing from the Horton & Hamilton Lumber Company, Mr. Hamilton, in the fall of 1881, organized the Winona Lumber Company, associating with himself the firm of Laird, Norton & Co., who had since 1855 been in the lumber business at Winona. This company at once erected a saw mill with capacity for cutting 200,000 feet per day, and soon after added an extensive planing mill, and sash, door and blind factory, which, with the mill, has been in continuous operation to the present time, its product being 35,000,000 feet of lumber, 15,000,000 shingles and 12,000,000 lath per year, the product being in some years increased to 40,000,000 feet, the larger portion of which has passed through the planing mill and been manipulated according to the demands of the trade. In March, 1894, Mr. Hamilton sold out his interest to Laird, Norton & Co., when W. H. Laird was elected president, Charles O. Goss vice-president, and William Hayes secretary and treasurer an office which that gentleman has held from the formation of the company.

Among the pioneers of the lumber business at Winona were the Laird brothers, who in 1855 started a small mill near the present site of the large mill of the Laird-Norton Company. In 1856, M. G. & J. L. Norton became associated with the Lairds, under the name of the Laird-Norton Company, and with various improvements from time to time, this mill which in 1880 was credited with a cut of 15,626,000 feet of lumber and 5,803,000 shingles, has for many years past turned out 40,000,000 feet of lumber and 30,000,000 shingles, with 10,000,000 lath annually.

Winona is located on the Mississippi river, at a point so commonly accessible to the rich prairie lands of the west, that its advantages as a lumber distributing point, combined with ready access to the log supplies from the Upper Mississippi and St. Croix rivers marked it as a more than ordinarily favorable point for the manufacture of lumber, and since the era of railroads penetrating to all parts of the country, it has enjoyed a demand for its lumber products second to that of no other market on the Mississippi river.

In 1857 E. S. Youmans and A. B. Youmans built a mulay mill, to which was added a "slab" saw, or saw for cutting slabs into short lengths, the precursor of the gang slab slasher of later days, and an innovation upon the prevailing custom of a majority of mills, which ran the slabs of full length out of the end of the mill, to be picked up and carted elsewhere for burning. In 1859 the firm added a circular, which was also the saw mill novelty of the times, having been introduced in the east but a few years before, using it for sawing up cants, after the log had been "skimmed" of its clear by the mulay, and was ready to be made into such desirable sizes, whether boards or dimension, as the coarser portion was best fitted for. It must not be forgotten that at this time and for many years later, only the pick of the timber was supposed to be worth cutting for the saw mill, and while the average size was from two to two and a half logs to the thousand feet, the quality was expected to be as good as twenty to thirty per cent to the better grades. About 1865 this mill was torn down and a new mill erected with two circulars, an edger, slab saw, shingle and lath mill. A few years later the mill was practically rebuilt, and a gang added. In 1871 A. F. Hodgins was added to the firm, which now became known as Youman Bros. & Hodgins, and in 1876 was incorporated under that designation. In 1890 the mill was torn down and an entire new structure erected, all of the old machinery discarded, and replaced with a gang, two bands, and a rotary (which later was displaced for a third band saw), with steam feed, double edgers, slab slashers, trimmers, live rolls, shingle and lath machinery, and all the paraphernalia of a modern saw mill of the first class, its capacity being equal to the production of 30,000,000 feet of lumber and 8,000,000 shingles, with 3,000,000 lath annually.

In the first compilation of statistics (1874) Winona is credited with the mills of Youman Bros. & Hodgins (built 1871), estimated capacity 9,000,000, running two circulars, employing 100 hands and turning out 9,000,000 feet of lumber and 2,500,000 shingles; Laird, Norton & Co. (built 1857), estimated capacity 12,000,000, two circulars, employing 100 men, cut 16,000,000 lumber, 12,000,000 shingles; A. P. Foster (built 1872), estimated capacity 2,250,000, one circular, employing ten men, cut 1,500,000, shingles 2,000,000; a total production of 26,500,000 feet of lumber, and 16,500,000 shingles. With constantly added facilities the mill cut steadily increased, and the returns for 1880 named only Youman Bros. & Hodgins and Laird, Norton & Co., with an aggregate of 47,500,000 feet of lumber and 18,000,000 shingles, while the report for 1892 names Laird, Norton & Co., 40,000,000, shingles 27,000,000; Winona Lumber Co., 40,000,000, shingles 25,000,000; Youman Bros. & Hodgins, 40,600,000, shingles 23,500,000; Empire Lumber Co., 28,000,000, shingles 23,000,000; a total of 148,000,000 feet of lumber and 89,600,000 shingles. The report for 1897 showed a falling off from previous years, the figures of production being but 125,651,000 feet of lumber and 67,136,000 shingles. Since 1875 a fair estimate of the aggregate production at Winona would give a total of 2,000,000,000 feet of lumber and 1,200,000,000 shingles.

Laird-Norton Co.—For something like forty years lumber has been the principal manufacturing industry of Winona, and during the greater part of this period the primacy of this industry has been acknowledged to be in the house now known as Laird-Norton Co. This house was established on June 1, 1855, as a copartnership between John C. Laird, M. J. Laird and William H. Laird, under the style of Laird Brothers. The last named of these brothers has participated in the active management of the business up to the present time. The firm of Laird Brothers did not manufacture lumber, but purchased the stock used by the firm from mills already established on the Menomonie and Chippewa rivers. The lumber was brought to Winona in rafts, handled by sweeps and poles, in the old fashion. Southern Minnesota was at that time a very attractive center of immigration. No soil in the world is richer, and the sale of government lands in blocks of one hundred and sixty acres to actual settlers, at nominal prices, drew great numbers of thrifty and energetic people into the district supplied by Winona. Minnesota was then under territorial government, the date of her admission as a state being 1858.

On October 1, 1856, Messrs. Jas. L. Norton and M. G. Norton became partners in the business established by Laird Brothers, and the style of the firm was changed to Laird, Norton & Company, which remained the copartnership name some twenty-seven years. Early in this period, however, Messrs. John C. Laird and M. J. Laird withdrew from the firm and went into other lines of business, leaving Messrs. William H. Laird, Jas. L. Norton and M. G. Norton the principals in the business for nearly the whole of the term named. In 1857 Laird, Norton & Company built their first saw mill, completing it about the 1st of September. The equipment of this mill was limited to one mulay saw for slabbing and canting logs, and a circular saw for cutting the cants into lumber. Its capacity was about 25,000 feet per day of ten hours.

During the 70s and the earlier 80s a great development, by way of occupation of lands and building up of towns, came to Southern Minnesota and South Dakota, and the capacity of Laird, Norton & Company's mill and plant was steadily increased to meet the demands upon it. In 1879 the old mill was torn down and a more modern mill erected, with a capacity of about 150,000 feet per day of ten hours. The log stock for this mill was obtained for many years principally from St. Croix river. In 1871 an organization, combining the forces of saw mill men along the main river, made it possible to obtain a larger part of the log stock from the Chippewa river. This organization became the Mississippi River Logging Company, one of the greatest industrial combinations of the northwest. Its energies were bent chiefly upon securing such control of the various logging streams, by way of combination of the owners of timber, as to relieve such owners from the expense of separate handling of the logs belonging to each. The economy in the cost of logs thus effected has been a great element in the financial success of the lumbermen who were parties to the organization.

On October 1, 1883, the business of the copartnership was made over to a corporation, whose style is Laird-Norton Co. The change was merely a formal one for convenience, the interest in the stock of the corporation remaining just as it always had been in the copartnership. Mr. M. G. Norton became president of the corporation, Mr. Jas. L. Norton its vice-president and superintendent, and Mr. W. H. Laird its secretary and treasurer. From 1875 on, the policy of this company was to purchase pine land to the extent of its financial ability, and it has become the holder of great quantities of pine timber in Wisconsin and Minnesota.

In June, 1887, the saw mill built in 1879 was destroyed by fire, and before the close of the season it was rebuilt, with an equipment of two gangs, two band saws, and a full complement of shingle and lath machinery, giving it a capacity for the manufacture of 250,000 feet of lumber daily. A planing mill was erected in 1868, and from time to time enlarged and its equipment increased to meet the demands of trade. A sash, door and blind department was added, and a reputation built up for good work in the line of interior house finish and kindred manufactures.

In 1881 the Winona Lumber Company was organized and incorporated by the stockholders of the firm of Laird, Norton & Company, in association with Mr. Andrew Hamilton of Winona. In 1894 Mr. Hamilton sold his interest to his associates and retired from this company. In 1881, also, the North Wisconsin Lumber Company was organized to conduct a saw mill and lumber business at Hayward, Wisconsin, on the Chicago, St. Paul, Minneapolis & Omaha railroad and the Namakagon river. The members of the Winona firm became half-owners in this corporation, and Mr. R. L. McCormick, a nephew of Mr. Laird, became its secretary and manager. In 1890 the Pine Tree Lumber Company was organized, with mills at Little Falls, Minnesota, by Laird, Norton & Company, in association with Weyerhaeuser & Denkmann of Rock Island, Illinois, and R., P. and P. M. Musser of Muscatine, Iowa. The aggregate production of the parent mill and these three mills for a full season approximates 200,000,000 feet. In 1871 the Mississippi River Logging Company, before mentioned, was organized, and within a short time after its organization Mr. Frederick Weyerhaeuser became its president. Later he became president as well of the Chippewa Lumber & Boom Company, operating a large saw mill and lumber plant at Chippewa Falls, Wisconsin. In 1893 the Mississippi River Lumber Company was organized, a company with headquarters at Minneapolis, whose business has been limited to the purchase of pine lands, logging and trading in logs. In all of these companies, which, taken together, have been given by the lumber press the name of the Weyerhaeuser Syndicate, Laird, Norton & Company are heavily interested.

It is interesting to record that when, at the suggestion of the United States Coast Survey, an exhibit was prepared by the Mississippi River Logging Company for the Columbian Exposition, showing the method of rafting and transporting logs on the Mississippi, the steamer Juniata, owned by Laird-Norton Co., was chosen as the typical raft-boat. An accurate model in miniature of the Juniata pushing a raft of toy logs, boomed, brailed and lined after the most approved fashion, was recognized as a familiar friend by most northwestern lumbermen who visited the Transportation building. In a few decades her type will be extinct, and the miniature craft, stowed away, perhaps, in the loft of some museum, may some day come to light to entertain the navigator of another century, as much of a marvel as the Columbian caravels.

William H. Laird, who, as having been active in the business of Laird-Norton Co. from the beginning, must be regarded as the founder of the house, was born in Union county, Pennsylvania, February 24, 1833. His parents were Robert Hayes Laird and Maria (Nevius) Laird. The father was of Scotch-Irish descent, and the mother of Holland ancestry, both, however, of American birth. Robert Hayes Laird owned and cultivated a farm some four miles from Lewisburg. William H. was given the advantages of the common schools, and of the academy at Lewisburg. In summer the operations of his father's farm received such of his time and services as was natural under the conditions. At the age of seventeen he took a place in the general store of his brother-in-law, William Allison White, at Clintondale. He remained in the service of Mr. White, who was a careful and successful merchant, about five years. In 1855 he determined to seek his fortune in the west. He arrived in Winona about the middle of April of that year, and made his first venture in the lumber business during the following summer as a member of the firm of Laird Brothers.

Mr. Laird was married in 1856 to Miss Mary Watson of Clinton county, Pennsylvania, one son and three daughters being the issue. The son, Robert H., born in 1858, died in infancy. Of the daughters, Frances Bradley became the wife of Fred S. Bell of Winona, who, since the incorporation of Laird-Norton Co., has been active in its management as its assistant secretary. Elizabeth White, the wife of Charles O. Goss, vice-president of the Winona Lumber Company since 1895, died April 6, 1895. The third daughter, Maude Watson, is the wife of Samuel L. Prentiss of Winona, cashier of the Second National Bank of that city. In 1889 Mrs. Mary Watson Laird died, and in February, 1895, Mr. Laird was married to Mrs. Della Shawhan of Tiffin, Ohio. Mr. Laird has been a member of the First Congregational church of Winona since 1857, and an officer of the church during the whole of that time. In politics he is a Republican, and has affiliated with that party since its organization. In the numerous lumber, logging and railroad companies connected with his business he has always had a conspicuous place. At this time, and for several years past, he has been president of the Mississippi Valley Lumbermen's Association, an organization of wholesale and manufacturing lumbermen, which busies itself in an attempt to secure uniform grades and methods in the lumber trade of the northwest, and to collect and disseminate information bearing upon the interests of the trade. Mr. Laird has been a liberal supporter of his church and the religious and charitable organizations of his city. He has long been a trustee of Carlton College, the Congregational school of the State, and has given its affairs much attention. In 1890 he presented to the First Congregational church of Winona a commodious and well-built parsonage as a memorial of his deceased wife. In 1897 he presented to the city of Winona a free public library building, at a cost of something over $40,000.

James L. Norton was born at Aaronsburg, Center county, Pennsylvania, in 1825. He was a son of John Norton and Isabella (Black) Norton, the former a native of Ireland, the latter American born. His business career began when at the age of twelve he was put at work to ride a mule on the tow path of the Pennsylvania Canal, at a salary of six dollars a month. At the age of sixteen he left the tow path to become a carpenter's apprentice, and in this occupation had his first connection with the business in which he afterwards became so successful. He worked at his trade in Philadelphia until he was twenty-seven years old, and then in company with his brother M. G. Norton, he took a subcontract to construct a section of the Grand Trunk Railroad then being built from Montreal to Portland, an uncle, John Black, being the general contractor for the entire line between these points. The new firm of Norton Brothers had their headquarters at Sherbrooke, Canada East, and in the course of their work were brought into contact with the very extensive lumber operations of that region. After the completion of their subcontract with the Grand Trunk road, the brothers took a contract for the construction of a portion of a railroad between New York and Boston, and later of a line in New Brunswick, with headquarters at Peta Kodiak, following the business of railroad contracting till 1856. At this time they were attracted to the west, and stopping at Winona joined their fortunes with those of their cousins, the Laird Brothers, forming the copartner-

Chas Norton

ship of Laird, Norton & Company. From the organization of this firm the business career of Mr. Norton has been merged with that of his brother and Mr. Laird in the very successful business operations of that company. Mr. Norton has contributed his share to the success of the firm mainly as superintendent of its manufacturing operations, his long practical experience and his natural faculty for mechanical details having established him as the leader along these lines. Under his guidance Laird, Norton & Co. have never been prone to try experiments, but have been alert to adopt the newest and best methods once approved, and have thus kept well abreast of the remarkable developments in manufacturing appliances.

In 1855 Mr. Norton was married to Miss Lucretia Wilson of Lewisburg, Pennsylvania, and his family consists of one son, William W. Norton, and three daughters. Isabel Jane married Rodolph McBurnie of Philadelphia, who for some years has been with Laird-Norton Co. as assistant superintendent. The second daughter, Mary ——, the wife of Dr. E. P. Clapp of Evanston, Illinois, died in 1897, and the youngest daughter, Edith, is the wife of Frank H. Thatcher, Esq., of the firm of Hopkins, Thatcher & Dolph, of Aurora, Illinois. Mr. Norton's church affiliation is with the Methodist Episcopal body. In 1840 he became a member of the M. E. Church at Lewisburg, and since that time his connection with the Methodist denomination has been constant and active, and has absorbed a great share of his interest. His benevolences to the support of this denomination and its institutions have been both numerous and large, the latest being set forth in the following sketch of his brother.

Matthew George Norton, the president of Laird-Norton Co. since its incorporation, was born at Lewisburg, Pennsylvania, in 1831, the younger brother of James L. Norton and of the same parents. He had the advantages of the common schools and of the excellent academy at Lewisburg. His first business ventures were in the line of railroad construction in partnership with his brother James L. Norton, as set forth in the preceding sketch. From the time of his taking up the lumber business in Winona he has been one of the leading citizens of the place, a recognized force in all business, philanthropic and social movements, and in the development of the lumber interests of the firm in their wider reaches, especially as involved in the operations of the Mississippi River Logging Company and its kindred companies, he has had a part hardly second to that of any other person.

In 1866 Mr. Norton married Miss Emma B. Hayes of Philadelphia. To this union were born two sons and two daughters. The elder son, Herbert Hayes, born in 1869, graduated from Harvard University in 1892, and at once connected himself with the lumber business. At the time of his death in December, 1894, he had for some time been vice-president and superintendent of the Winona Lumber Company. The second son, Matthew George, Junior, born in 1871, was a student at Harvard at the time of Herbert's death, and survived him only a few months, grief at the loss of his much loved brother being a strong factor in his breaking down. The daughters, Mary B. and Beulah, are still with their parents.

In politics Mr. Norton has always been an active Republican. In an early day he was treasurer of Winona county for a period, this being, however, his only connection with political office. In 1884 he was appointed Republican national committee-man for Minnesota, but declined the appointment because of pressing business engagements. Both Matthew G. Norton and James L. Norton are honored and influential members of the Methodist Episcopal church, and have devoted no small share of their time and means to the furtherance of its cause. In 1896 they contributed a very large portion of the funds for the erection by the Central Methodist church of Winona of a church building unequaled in southern Minnesota in its size and in the elegance and completeness of its appointments, its total cost being about $90,000. In this church Mr. Matthew G. Norton has placed a Hook & Hastings organ of unusual size and perfection as a memorial of the two sons whose early loss we have chronicled. Mr. Norton has always been generous in his gifts to local charities and to benevolent organizations, and has long been a trustee of Hamline College, the Minnesota school of his denomination. In the course of a very crowded and active business life Mr. Norton has been something of a disciple of the gentle Isaac Walton, and has found time to indulge a taste for books and reading, quite unusual with men so burdened with practical responsibilities. He has accumulated a private library of great value, and enjoys nothing more than rummaging old book-stalls, unless it be the quiet hour afterwards with the treasure-trove.

Charles O. Goss of Winona, Minnesota, was born in 1855, at Horicon, Dodge county, Wisconsin, the son of Samuel Green and Mary Walbridge (Glover) Goss. The young man's school days ended in 1868, when he took a clerkship in a general store at his native town, and remained in that employ for the next three years. In 1871, being now sixteen years of age, he engaged as time-keeper for the contractors of a portion of the Escanaba branch of the Chicago & Northwestern railroad, and in the following year went to Janesville, Wis., where he mastered telegraphy, and became station agent and telegraph operator for the Chicago & Northwestern railroad; the next five years being spent in that capacity at Janesville, Armsville and Jefferson, with one year at Oconto. In 1877, after spending a time at Wilmington, Delaware, he went to Winona and entered the employ of C. H. Knapp, then general agent for the Chicago & Northwestern road, taking the position of chief clerk and telegraph operator, remaining in that position until 1885, when he was appointed local freight agent, a position which he retained until 1893, at which time he entered the office of the North Wisconsin Lumber Co. at Hayward, Wis.; and in 1895 was elected vice-president of the Winona Lumber Co. of Winona, where he has since remained. Mr. Goss married Miss Elizabeth Watson Laird, daughter of William H. Laird, Esq., of Winona, three daughters being the issue, the eldest being born in 1891, and twin daughters in March, 1895, the mother living less than a month after their birth. Mr. Goss is a member of the Presbyterian denomination, and of the Masonic order, and in politics is a

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Republican. During his long residence in Winona he has held an enviable reputation as an excellent business man and useful citizen.

Charles Horton of the Empire Lumber Company of Winona, Minnesota, was born in Cayuga county, New York, in 1835, the son of Gabriel and Eliza (Corwin) Horton, natives of Orange county, N. Y. His parents were farmers, and the boyhood of Mr. Horton was spent upon the farm and in attendance at the district school of the neighborhood. At the age of sixteen years, Charles went to Athens, Pennsylvania, where he found employment in the lumber woods, and became familiar with all branches of logging, manufacturing and rafting lumber, which, at that period, found market principally by this method of transportation, and in this neighborhood was made into cribs, which were floated down the Susquehanna to Columbia, where it was taken from the water and loaded into canal boats for conveyance to Philadelphia and Baltimore, which cities vied with Havre de Grace in the handling and distribution of the lumber manufactured upon the upper waters of the Susquehanna and its tributaries in Pennsylvania and New York.

In the fall of 1856 Mr. Horton came west and decided upon Winona as a promising point for his future endeavors, and was employed by Porter & Garlock, who had purchased the mill erected in 1855 by the firm of Highland & Wycoff, it being the first mill erected at Winona, and the inception of the extensive lumber manufacture at that point, which, in later years, contributed, as it still continues to do, an average of 175,000,000 feet of lumber and 100,000,000 shingles per year, to the vast product demanded by the wants of a rapidly developing nation. The mill in which Mr. Horton found employment at that time was a mulay and circular mill, with capacity for the manufacture of from twenty-five to thirty thousand feet daily, or about four and a half to five million feet per season, presenting a striking contrast to the 30,000,000 feet of lumber and 20,000,000 shingles which constitute the yearly output of the Empire Lumber Company, of which Mr. Horton has for many years been in official and financial connection.

As was customary, Mr. Horton, at the close of the sawing season, went to the woods for a winter's work in the logging camps, his first winter being thus spent in the employ of William Duckendorf; the following summer finding him at his old post in the mill. The winter of 1858-9 was spent in the camps of C. C. Washburne on Hay Creek, a tributary of the Menomonie river, and his next two summers in the Washburne mill at Waubeck, in Dunn county, where he remained until in the summer of 1860, when, in consequence of the stringency of the times, resulting from the panic of 1857, supplemented by the outbreaking of the rebellion, and the resulting stringency in money, he was unable to get his pay in cash, and accepted that which his employer was able and willing to give, viz: lumber and shingles. The quantity aggregated about ten cribs of a raft, and was run down the Chippewa and to Winona, where it was disposed of. This formed the starting point of lumbering on his own account, and was the precursor of the extensive operations in which Mr. Horton has since been engaged. After disposing of his lumber, Mr. Horton formed a partnership with Andrew Hamilton of Winona, and purchased the lumber yard of Mr. Garlock, whose mill had been destroyed by fire, and the firm of Porter, Horton & Hamilton began a lumber business, which included logging, rafting, and a general lumber business, until 1866, when Mr. Porter sold his interests to the other partners, who continued under the name of Horton & Hamilton until 1880, when Mr. Hamilton sold his interest to Mr. Horton, who, in connection with Ingram, Kennedy & Co. of Eau Claire, organized the firm or corporation of the C. Horton Lumber Company of Winona, and in 1881, in connection with Dulany & McVeigh of Hannibal, Mo., organized the Empire Lumber Co., into which the C. Horton Lumber Co. was merged. This company, in the fall of 1886, erected a large mill at Winona, with a sawing capacity of 200,000 feet daily, being equipped with two gangs and two band saws, the stock for which is obtained mainly from the St. Croix river, the product being marketed principally by rail to consuming and retail points in Minnesota and Iowa.

Mr. Horton was married in 1864 to Miss Alice M. Rogers of Binghamton, N. Y., one son and four daughters being the issue. Mr. Horton is recognized as among the most enterprising and public-spirited men of Winona, and is no less honored and esteemed among the fraternity of lumbermen throughout the entire northwest. He is a member of St. Paul's Episcopal church, and has been an adherent of the Republican party from its inception, while never seeking political preferment.

William Hayes of Winona, Minnesota, was born at Lewisburg, Pennsylvania, November 27, 1846, the son of Thomas and Mary (Hulme) Hayes. He attended the public schools of Lewisburg, until, at the age of fifteen, when his parents removing to Philadelphia, he spent two years in the schools of that city, and at seventeen years of age was employed by the Farmers' and Mechanics' Bank of that city, and remained in that employ, in advancing capacities, for the succeeding nine years. In 1872 he went west, and in the spring of 1873 entered the office of the Mississippi River Logging Company, remaining in their office at Beef Slough until 1880, when he resigned his position, and, after a brief visit to Philadelphia, returned to Winona, and was elected secretary and treasurer of the Winona Lumber Company, of which Andrew Hamilton was president, and William H. Laird vice-president (Mr. Laird becoming president upon the retirement of Mr. Hamilton in 1894). This company is one of the largest of the many large mill companies of the northwest, its annual cut aggregating 40,000,000 feet of lumber and 25,000,000 shingles, the log stock for which is supplied by the Mississippi River Logging Company, in which the Winona Lumber Co. is a stockholder. The mills of the company comprise two gangs and two band saws, with a full complement of the most modern devices for the manufacture and handling of lumber, its extensive distributing trade being spread over a vast expanse of the consuming territory, included principally in the states of Minnesota, Iowa, Missouri, Nebraska and South Dakota. In connection with this large manufacture, the company has an extensive planing mill and factory for the manufacture of sash, doors and blinds, together with interior house finish, which, formerly made by hand, has of late years, under improvements in machinery devised for that purpose, and the increased demands of consuming markets, making it requisite for retail dealers to supply housebills after architects' plans and specifications, given rise to a necessity on the part of saw mill operators to add this branch of finer manipulation to the manufacture and dressing of lumber.

Mr. Hayes holds a deservedly high position in the esteem of the lumber fraternity and among the citizens of the city of his long residence.

He has never been married; is a member of the Presbyterian church, in which he has long been an honored and influential worker, and in politics is a Republican.

CHAPTER XXXVIII.—THE HEAD OF THE LAKES.

DULUTH AND SUPERIOR CITY.—THE RISE AND PROGRESS OF LUMBER DEVELOPMENT.

WITH the rapid decadence of the timber supply of Michigan, operators were not slow to seek other fields of operation, and the forests of Wisconsin, and those of the Lake Superior region in Minnesota, assumed an importance not previously accorded to them by eastern manufacturers and dealers. The lumber of the Green Bay region of Wisconsin gained high repute in the eastern markets as early as 1850, but the rapid expansion of the trade at Chicago soon turned the current of shipments wholly to that point, while the increasing production of the Saginaw Valley and eastern Michigan, supplying an equally desirable quality of lumber with a shorter transportation, took its place in the eastern demand, and from 1860 to about 1885 very little Green Bay lumber found an eastern outlet, although since about that year, the demands upon Menominee and the region of Green Bay for eastern shipments have vastly increased.

From about 1875 to 1880 increasing attention was paid to the Lake Superior district, and by 1885 it had assumed a hitherto unknown importance in the lumber production of the country, and has since become known as one of the chief sources of supply. Of the various points on Lake Superior, none has assumed the importance attaching in the later years to Duluth and Superior City, which from their propinquity of situation may be treated as one, although separated by the imaginary line which forms the boundary between the states of Wisconsin and Minnesota. Of the earlier history of this section, Frank A. Flower, a well-known statistician, in his work, "The Eye of the Northwest," says:

> "We finished the surveying contract (1853) and went in early fall down to Iron river, built a double log shanty and made other preparation for the construction of a saw mill, here the first lumber was made at the head of the lake, and the first road opened through to the settlement on the St. Croix. * * * In 1854 the lumber was all whipsawed at a cost of $24 per thousand feet. August Zachau began on March 24, 1854, on what is now Tower Slip, to shave shingles and get out timber for the Superior Hotel" (now the Nicollett. Ed.).

"The shingle camp was on the corner of Third street and Tower avenue. The hotel was made of hewn logs, tenons on the end being framed into corner posts; for this work 24,000 feet of timber was got out; whip sawyers, of whom there were four pits or gangs, were paid $3 to $4 per day. Axes and saws had to be taken to the government blacksmith at Fond du Lac (on the St. Louis river) to be sharpened and otherwise put in order," (the earlier settlers having neglected, evidently to supply themselves with a grind stone, and lacking the skill to keep their whip saws in order beyond a filing of the points of the teeth, which soon lost shape and depth).

In 1855 Woodbury, Bothwick & Shaylor, built a mill on Connor's Point, which speedily passed into the hands of John D. Howard, and was known as the Howard mill; it ran a mulay saw, and its capacity was about 4,000 feet daily. It was burned in 1883. In 1864 H. M. Peyton brought a small saw mill from Minnesota Point to Connor's Point, and changed the mulay to a circular, with capacity of 25,000 feet per day; this mill was operated by Peyton & Co. until 1880, when the firm of Peyton, Kimball & Barber was formed and the mill was increased to a two circular mill with capacity for cutting 100,000 feet daily; the mill has had repeated rebuildings to keep it up to the standard of modern manufacture. In 1881-82 the Paige-Sexsmith Lumber Company erected a double circular and gang mill with capacity for the manufacture of 150,000 feet per day; this mill in 1888 was purchased by Charles S. Murray & Co.

In the fall of 1889 the West Superior Lumber Company erected a large saw and planing mill near the base of Connor's Point on the lake shore side; this mill was rated at 150,000 feet daily capacity. In 1889 Frederick Weyerhaeuser and his associates secured an option on a large tract of land in Allouez Bay at the mouth of the Nemadja river, and later obtained vast areas of pine lands in this section of the state, emphasizing the title which already attached to Mr. Weyerhaeuser as the "Pine Land King of the Northwest."

There is an abundance of hard and soft woods in this vicinity. The pine comes largely from the Nemadja river, the St. Louis river, and the streams emptying into Lake Superior both on the north and south shore, being towed from these points in rafts. Until within a few years the market for this timber, which is not on an average as good in quality as that of the more southerly portions of the State was found in a local demand and in Dakota and northern Minnesota. The trend of trade of later years has taken a large proportion of the mill products to the east and to Chicago. The mills, however, are many of them equipped with planing mills, which prepare a goodly proportion of the mill cut for a car trade, which has greatly increased in late years. Beside the planing mills connected with saw mills, the firms of Leonard & Simons, John Devlin & Co. and Caleson & Co. operated factories for the manufacture of sash, doors and blinds and general house finish.

Joseph Gregory, a native of Canada, emigrated to the United States in 1854, and in June of the following year went to Superior City upon the first boat which effected a landing on the piers which had been built at that point; here in connection with other

H. L. Stout

parties, he engaged in the lumber business, and got out the first logs for the first saw mill at Superior City; this mill was erected by William Mann, who commenced work upon it in June, 1855; it was of limited capacity intended only for supplying the wants of the settlers, who at this time were being attracted to this locality. A second mill was erected on Connor's Point by Woodbury, Bothwick & Shaylor, who commenced work upon it in August, 1855, and these were the precursors of the extensive lumber business which in later years was developed at this point. Mr. Gregory went to Lake Linden in Houghton county in 1859, and is mentioned in connection with the saw mill history of that section.

For a concise history of this section, the historian takes the liberty of making copious extracts from an exhaustive article prepared by Mr. D. A. Woodbridge, which appeared in The Mississippi Valley Lumberman of Minneapolis in February, 1895:

"The Duluth manufacturing district, which takes in the mills in St. Louis, Carlton and Lake counties of Minnesota, and those across the bay from Duluth, in Superior, Wisconsin, has, since 1892, become the second in point of output on this continent. In the city of Duluth alone nearly 3,700 men were employed last year (1894) in the lumber industry, making a product valued at nearly $4,500,000. This was an increase of nearly 300 men over the year before, and of a half million dollars in product. Across the bay in Superior, nearly 300 men were employed in this industry, and their output brought the total at the head of the lakes up to a value of nearly five millions of dollars. There are fifteen mills at Duluth and two in Superior, with capacities ranging from 5,000,000 to over 40,000,000 feet of lumber per season, some of them as perfectly equipped plants as can be found on the continent. During the darkest days in the financial depression of the past two seasons most of the mills were in operation, keeping an army of men in employment, when armies in other less favored communities were going unfed, proving, by their steady disbursements of funds, one of the city's strongest bulwarks. Last season's (1894) lumber cut in the Duluth district was phenomenal. In round numbers the various concerns turned out the following amounts: Mitchell & McClure, 43,500,000; Cloquet Lumber Co., 35,000,000; Duncan, Brewer & Co., 26,400,000; Peyton, Kimball & Barber, 16,000,000; Knox Lumber Co., 15,000,000; B. B. Richards Lumber Co., 13,000,000; Merrill & Ring, 40,000,000; C. N. Nelson Lumber Co., 37,500,000; C. S. Murray & Co., 15,000,000; West Superior Lumber Co., 14,500,000; Howe Lumber Co., 15,000,000; Paine & Co., 12,000,000; Moon Lumber Co., 10,000,000; Scott & Holston, 6,500,000; Howard Lumber Co., 5,000,000; W. P. Heimbach, 3,000,000; T. J. Feeley, 2,000,000; small mills on south shore, 10,000,000; Hubbard & Vincent, 7,000,000; Herman & Becklinger, 4,000,000; M. Carroll, 2,000,000; Mills & LeClaire (south range), 3,000,000; small mills on Iron ranges, 7,500,000; total, 342,900,000 feet.

"The interference of the State boundary line in the middle, as it were, of the Duluth district, makes it impossible to get an exact statement of the logs banked and scaled that are tributary to Duluth. The logs scaled on the Minnesota side in 1894 were as follows: Duluth and vicinity, 123,000,000; Cloquet, 43,985,828; Carlton, 12,000,000; Rainy river and tributaries, 12,000,000; Tower, 15,000,000; Duluth & Iron Range railway, 8,000,000; Duluth, Mesaba & Northern railway, 8,500,000; a total of 222,485,828 feet.

"A very large proportion of the log cut of this district is in Wisconsin, two of the largest companies in the district getting their entire stocks there. * * * * * Duluth and Superior are to-day the mecca for lumber manufacturers whose pine is exhausted, or whose mills have been put at disadvantage by changes in conditions, and whenever a saw mill in any part of the northwest is destroyed by fire, the owner is soon seen looking over the ground at the head of the lakes. * * * * * The county of St. Louis, of which Duluth is the chief town, extends northward for a distance of 140 miles to the Canadian border, rich in almost boundless forests. Various estimates of the quantity of standing timber have been attempted, but there are many unsurveyed townships, some of which have, perhaps, never known the foot of a white man. On the Rainy river, and reaching far southward along its tributaries on the American side, are tracts of pine and the various hardwoods that delight the eye of the lumberman. And this is only one county, and it is as big as the state of Connecticut. The lumber district tributary to Duluth includes Cook, Lake, St. Louis, and part of Carlton counties in Minnesota, the northern portion of Douglas and the northwest part of Bayfield counties in Wisconsin, most of them heavily wooded with timber of commercial value. In the Minnesota counties referred to, there are nearly five million acres of government lands to be disposed of to settlers, or nearly one-half of the whole area. Thus far only two-thirds of that open to settlement has been surveyed.

"It has been the aim of those locating waterfront mills on the Duluth side to put them near together in the upper bay. * * * * Between the ends of Rice's and Grassy points, which bound the bay, and are less than three miles apart, stand seven mills, with an aggregate annual capacity of 210,000,000 feet, and they are all new, having been built or completely overhauled within three years. All ship by water to eastern points, through the canal at Sault Ste. Marie, no less than 722,788,000 feet of lumber passing through that canal from various ports on Lake Superior during the year 1894, of which 174,418,000 was reported from Duluth and Superior."

After the venture of Woodbury, Bothwick & Shaylor in 1855, we find record of a mill built in 1856 by Edwin F. Ely (who had previously been a missionary), at Oneata, now a part of Duluth. About this time a man named Keeley built a mill about two miles up the bay shore from Ely's; this mill was taken down a few years later. Soon after, George

E. Nettleton built a mill on Minnesota Point, and Bothwick & Shaylor started another on Connor's Point. These were all small mills, cutting but three to five thousand feet per day, supplying a local demand. The mill on Connor's Point, soon after its completion, was purchased by J. D. Howard, whose sons constituted the later well-known Howard Lumber Company of Duluth. The old mill was burned in 1882. In 1863 the Nettleton mill was purchased by H. M. Peyton and Edmund Ingalls, and removed to Connor's Point in Superior. Peyton & Ingalls were, in 1870, succeeded by Peyton & Kimball, who, in turn, were, in 1882, succeeded by the present firm of Peyton, Kimball & Barber, Mr. Barber having for many years previous been a member of the firm of Chapin & Barber at Bay City, Mich. A small mill was built in 1856 at Beaver Bay by Wieland Bros., which, in 1880-81, was purchased by Hartmann, Mallett & Gibbs; J. J. Hibbard also erected a mill in 1857 at Burlington Bay, and in the same year D. B. Johnson built one at Superior, which was torn down in 1893.

The panic of 1857 was a great dampener upon all the industries at the head of the lake, and it was not until 1869 that lumber manufacture began to revive. In that year Munger & Gray purchased the Ely mill at Oneata, and when, in 1870, Duluth took the character of a boom, the mills then existing found a demand taxing their capacity, but the panic of 1873 again paralyzed the trade and town. In 1870 Weld & Petrie built a small mill on the west side of Rice's Point, and in 1871 Patterson, McWade & Co. put up a mill just below the canal, which was burned a few years later. In 1870, also, Miller & Wyncoop built a mill at Thompson, twenty-four miles west of Duluth on the railroad (which reached Duluth in 1871). This mill was later owned by A. M. Miller, and ran for a number of years. In 1869 L. G. Hughes, later of St. Paul, built and operated a mill inside of Minnesota Point below the canal.

This locality did not recover from the panic of 1873 and subsequent years until about 1880, when through the resuscitation of the Northern Pacific railroad from Duluth to Puget Sound, which in consequence of the failure of Jay Cooke in 1873, had lain dormant, the rapid development of North Dakota and the west generally, brought about an awakening which has resulted in the present vast development, and in the three years of 1880-1883, no less than eleven saw mills were erected upon the banks of the bay. Among the first was the mill of Cutler, Gilbert & Pearson on Rice's Point, which later was operated by the Barnhart Lumber Company, who after some years sold it to the Mesaba Lumber Co., who moved it to Mesaba on the Duluth & Iron Range railroad, and in 1894 it became the property of Clarence M. Hill of Saginaw. In 1880 John S. Taylor, for many years of the lumber manufacturing firm of Taylor & Moultrop at Bay City, Michigan, built a single circular mill, on the bay front, which five years later was destroyed by fire. In 1881 Taylor, Fish & Haupt built a single circular mill on Rice's Point, which was purchased in 1883 by Little, Peck & Co., who added a second circular, and Little & Co. operated it until its destruction by fire in 1885. R. A. Gray in 1880 built a mill at the end of Rice's Point, which has for several years been operated under lease by the Cranberry Lumber Co. In the winter of 1881-82 the Paige-Sexsmith Lumber Co. built a double circular capable of cutting 150,000 feet per day, on Connor's Point; on their failure in 1884 it lay idle until 1888, when it was purchased by C. S. Murray & Co., who, finding the site inconvenient, moved it to the upper bay in 1894. In 1881 Graff, Little & Co. built a double circular on the upper bay at the end of Rice's Point, which was operated for some years by Graff, Murray & Co., when it was purchased by the Scott-Holston Lumber Co. Close by this mill J. W. Norton & Co. built a mill of similar capacity, being succeeded by Norton, Atwater & Co., who ran it but a short time; it was later purchased by Hubbard & Vincent under whom it was burned in 1893 and at once rebuilt.

One of the largest mills ever erected at Duluth was built in 1881-2 by the Duluth Lumber Co., of which S. K. Martin and R. L. Henry of Chicago, and H. B. Moore of Duluth were the principal stockholders, George Green ofChicago being the manager. This mill was located near the Vincent mill, and had capacity for cutting 30,000,000 feet yearly. It was afterward sold to the H. C. Akeley Lumber Co. of Minneapolis, who removed it to that city and is the same one mentioned in connection with that company at that point.

The mills of 1880 as reported at that time in operation were H. M. Peyton 6,000,000 feet of lumber, 250,000 shingles, McLean & Scott 900,000, Graff Little & Co. 5,000,000, A. M. Miller 10,000,000 feet of lumber, 3,000,000 shingles, Cutler Gilbert & Pearson, Taylor, Fish & Haupt, Weld & Petrie, W. G. Hewes, R. A. Gray, all new mills making no report of cut; Hall, Norton & Co. 1,000,000 shingles, Paine & Co., North Pacific Junction, 7,600,000 feet of lumber, 2,200,000 shingles, Knife Falls Lumber Co., Knife Falls, 6,500,000 feet of lumber, 1,000,000 shingles, C. N. Nelson Lumber Co., Cloquet, no report; a total of 36,000,000 feet of lumber and 7,450,000 shingles for this district in that year. About the same time as the Duluth Lumber Co., W. T. Bailey built a mill of 60,000 feet daily capacity, which he soon after sold to the Oneata Lumber Company, who ran it for a number of years, when the mill was burned, together with a planing mill used in connection with it, the Fish & Haupt mill (operated by Osterhout & Hughart, two Grand Rapids, Michigan, men) sharing the same fate. The last mill to be erected on Minnesota Point was that of Heimbach, Dailey & La Chappelle in 1882-3, which ran but two years. It took five years after the collapse of the Dakota boom about 1884, for the Duluth trade to recuperate, but in 1889 the West Superior Lumber Company built a mill of 20,000,000 feet yearly capacity on Connor's Point in Superior, which has continued in operation. In 1890 a Saginaw syndicate organized the Cranberry Lumber Co., and acquired a large tract of land on the south shore of the lake, towing the logs to Duluth: this company's operations were to the extent of 40,000,000 feet per year. When the Cranberry Lumber Company began, there were but two mills on the upper bay at what was known as West Duluth, that of Hubbard & Vincent and that of Scott & Holston. In 1891 Mitchell & McClure of Saginaw erected one of the finest plants in the country with capacity for the manufacture of 50,000,000 feet yearly, having secured timber lands in Wisconsin estimated to yield 500,000,000 feet, building a logging railroad several miles in length to bring the logs to a suitable booming ground. In 1893 the Saginaw Lumber Company (later being known as the Merrill & Ring Lumber Company) completed a mill similar to that of Mitchell & McClure, both companies constructing extensive docks for holding a season's cut, if need be. About this time also Duncan Brewer & Co. built a mill of 18,000,000 feet capacity, which was burned two years later and was at once rebuilt on the most modern plan. About this time also a third mill with extensive planing mill was built by the Huntress & Brown Lumber Company, which soon after was purchased by the St. Louis Lumber Company, composed of William McMillan, and A. H. Petrie of Minneapolis and —— Reynolds of Sturgeon Bay, Wis., who still operate it.

Almost contemporaneously with the movement at West Duluth and Oneata, there was a movement in the same line a few miles up the river at New Duluth, a place which sprang into existence in a day. Four mills were located there, including the B. B. Richards Lumber Company, composed of Dubuque men; Herman, Becklinger & Herman, W. P. Heimbach and Frederick Herman, whose mill was a small one; the Richards mill being the largest of the four with a capacity for manufacturing 13,000,000 feet annually, afterward enlarged to a 30,000,000 feet capacity, the improvement of the river enabling vessels of fair draft to ascend the ten miles of river between New Duluth and the older city. For some years past the Howard Lumber Co. have operated a 5.000,000 mill near the eastern end of the city. In 1895 the Lesure Lumber Company of Dubuque, Iowa, built a mill at West Duluth, with a capacity of 15,000,000 feet. The McCord-Ogilvie Lumber Co. in the same year constructed a mill at Superior, which figures in the reported cut of 1896, at 10,000,000 feet of lumber and 2,000,000 shingles. In 1895 also the Johnson, Wentworth Lumber Company, erected a mill at Cloquet, reporting a cut of 12,000.000 feet in 1896. This company also had a mill at Barnum, Minnesota, which made no report for 1895 or 1896. The operations of the C. N. Nelson Lumber Company at Cloquet have for many years been among the largest in this section, its cut being reported at a range of 45,000,000 to 60,000.000 feet of lumber, and 25,000.000 shingles yearly. This mill property together with its extensive supply of timber, was in 1895 purchased by a syndicate, of which Frederick Weyerhaeuser, the "Lumber King" of the northwest was the leading spirit. The first mill in St. Louis county north of Duluth, was a portable taken 100 miles to Tower, in 1884, by John Owens, for the Minnesota Iron Company, for whom Mr. Owens operated it for two years, when he formed the partnership of Sellers & Owens, purchased the mill, and enlarged it to a capacity of 50,000 feet per day. In 1888 the Howe Lumber Company was formed, and built a mill of 25,000,000 feet capacity at Tower, absorbing the previously named company.

There are several other mills in the Mesaba range, among them the D. H. Moon Lumber Co. (later the Moon Lumber Co., at Virginia), with 10,000,000 feet of lumber and 3,000,000 shingles capacity; J. D. Reekie, Virginia, and Frank Hibbing, at Hibbing. The Knox Lumber Co. have a mill at Ely, twenty-five miles east of Tower, on the Vermillion range. The product of these interior mills finds an outlet to the eastern markets from Duluth.

The business of this section suffered less, perhaps, during the depression of 1893-1896 than many other localities, and, with the revival of business in 1897, was among the first to benefit by the improved conditions, owing largely to the decadence of the timber supply of Eastern Wisconsin and of Michigan, causing the Duluth district to take the prominent position as a supply point which was for years enjoyed by Saginaw and other points of manufacture, while yet the severity of the depression at this point is well illustrated in the fact that the product of 1895 was reported at 473,914,956 feet of lumber and 89,501,000 shingles, while that of 1896 was but 364.392,755 feet of lumber and 45,383,500 shingles. The trade of 1896 was represented by Duncan, Brewer & Co., 15,235,000 feet of lumber, 3,643,000 shingles; B. F. Howard, 5,000,000; Hubbard & Vincent, 16,300,000; Lesure Lumber Co., 7,466,000 lumber, 1,872,000 shingles; C. S. Murray & Co., 10,000,000 lumber, 3,000,000 shingles; Scott & Holston Lumber Co., 14,150,000; Stevens & Gray, 7,608,000; Heimbach Lumber Co., 30,000,000 lumber, 2,000,000 shingles; Herman, Becklinger & Hinnan, no report; B. B. Richards Lumber Co., 12,500,000; Merrill & Ring, 25,356,000 lumber, 2,811,000 shingles; Mitchell & McClure, 28,512,000; St. Louis Lumber Co., 19,500,000 lumber, 3,000,000 shingles. At Carlton: Paine & Co., 6,500,000 lumber, 500,000 shingles; at Cloquet: Johnson & Wentworth Lumber Co., 23,500,000 lumber; Cloquet Lumber Co., 23,500,000 lumber, 3,578,000 shingles; Northern Lumber Co. (formerly C. N. Nelson Lumber Co.), 25,700,000 lumber, 11,454,000 shingles; at Mahtown: Waldorf & Dunsmore, ————; at Mesaba: C. M. Hill & Co., 6,500,000 lumber, 1,820,000 shingles; at Moose Lake: Ehr Bros. & Blomquist, 2,000,000 lumber, 1,000,000 shingles; Pine City: Burgen Bros., ———; Tower: Howe Lumber Co., 25,200,000 lumber, 200,000 shingles; Willow River: Atwood Lumber Co., 14,000,000; Winton: Knox Lumber Co., 16,000,000 lumber, 4,000,000 shingles; Virginia: W. T. Bailey, 3,000,000; Moon & Kerr Lumber Co., 9,000,000 lumber, 3,000,000 shingles; West Superior: McCord Lumber Co., 10,000,000 lumber, 2,000,000 shingles; Peyton, Kimball & Barber, 8,500,000 lumber, 1,395,000 shingles; West Superior Lumber Co., 10,815,000 feet of lumber.

The cut of the Duluth district previous to 1878 was but limited, and in that year, which was the first in which it was dignified by a place in the reports, the cut was stated at but 10,500,000 feet of lumber and no shingles: this quantity was increased year by year, reaching 89,000,000 in 1881, and 191,000,000 in 1882, and 243,000.000 in 1884, about which figure it ranged until 1888, when 278,000,000 feet of lumber and 111,261,000 shingles were reported. The banner year was in 1895, when the cut reached 474,000,000 feet of lumber and 89,501,000 shingles, the aggregate cut from 1878 to 1896 inclusive being 4,428,686,228 feet of lumber and 1,239,572,000 shingles, which, reduced to lumber, at the ratio of 8 to 1, gives a total reported production equal to 4,583,632,790 feet of lumber, to which adding ten per cent for unreported and production previous to 1878, and the Duluth district may be safely stated to have produced no less than 5,041,996,069 feet of lumber and shingles in the aggregate, with a larger prospective supply in the future than any other lumber-producing section of the northwest, albeit in its quality it does not take rank with the more southerly and easterly sections of the lumber-producing districts. Adding the reported cut of the Duluth district for 1897, as developed in the statistics of that year, amounting to 477,269,000 feet of lumber and 67,092,000 shingles, and the total production of this district to the year 1898 reaches full 5,500,000,000 feet in the aggregate.

As to the future supply of the state of Minnesota, statisticians widely vary. In the government census of 1880, well-informed lumbermen set down the total available pine resources of the State at but 11,000,000,000 feet. These figures were at once challenged by others equally or better informed, some of whom placed their estimates as high as 30,000,000,000 feet; that the latter were nearer the mark the later developments have abundantly demonstrated, while yet it may be truthfully urged that the census estimators based their figures upon the then prevailing system of lumbering, in which nothing smaller than a twelve-inch tree was thought fit for lumber, while later custom clears the forest of everything large enough to be handled in a saw mill, down to a six-inch log, and includes the rougher grade of defective timber, never until very recent years considered worth the cutting.

Present estimates vary as largely regarding the future supply as did those of former years. In conversation with well-informed men, the historian is given estimates ranging from eight to sixteen billion feet, while in a recent lumber journal, Mr. Frederick Weyerhaeuser, than whom no better judge of conditions is to be found, is credited with the opinion that the State has present resources to the extent of 20,000,000,000 feet of pine. These still remaining resources are to be found principally in the region lying north and west of Duluth and upon the head waters of the St. Croix.

An analysis of the total production of Minnesota, as reported to the lumber journals in 1897, gives to the State a total of 1,584,747,000 feet of lumber and 340,999,000 shingles for that year, while our compilations of production of the State from the earliest period aggregate a total cut of 32,149,810,193 feet of pine timber.

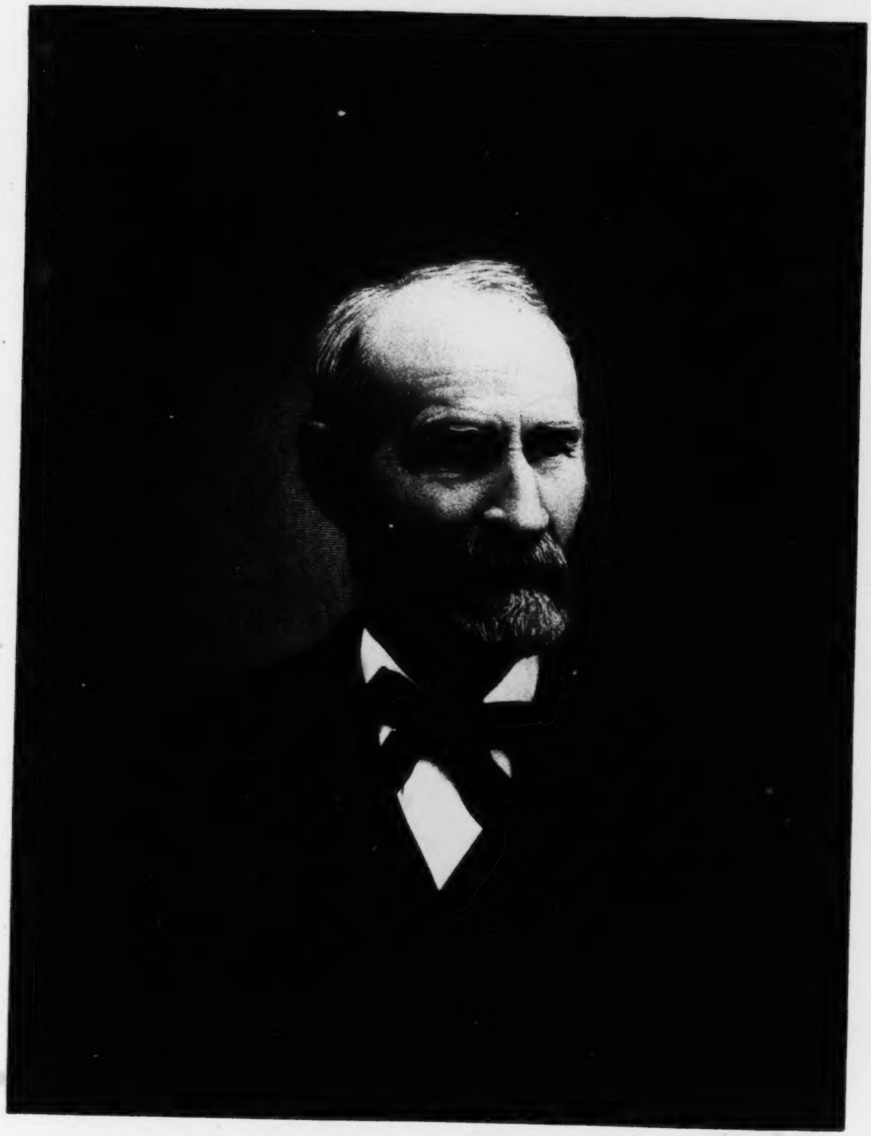
Of the remaining resources it is difficult to form an estimate, well-informed men placing the pine supply as high, in some instances, as 30,000,000,000 feet, and in others as low as 16,000,000,000. As these estimates are, to a considerable extent, based upon individual judgment as to the quality of timber to be cut, it is not unlikely that each is not far from correct, inasmuch as the lower estimate takes account only of a fair grade of timber, while the other includes everything in the shape of pine, whether of a merchantable quality or otherwise, and includes vast forests of burned timber and, as well, that grade of live timber which, while in the past not thought fit for the saw mill, is now, to a great extent, utilized, and of this there are large amounts scattered through every forest of pine. In illustration: Up to about 1860 only the pick of the trees, timber running from twenty to fifty per cent to upper grades, was cut, while to-day an average of two per cent uppers would be very high, and sixty per cent cull is not an unusual mill output.

It is probably safe to say that the Minnesota forests will, in the future, produce 20,000,000,000 feet of merchantable pine timber, averaging, however, of a much lower grade than the amount produced in past years.

Duncan, Brewer & Co.—The members of the above mentioned firm—David A. Duncan, Frank A. Brewer and Charles A. Duncan, are engaged in the manufacture of lumber, lath and shingles at Duluth. They established their business in Duluth in 1880, but until about five years ago they had their logs sawed by contract. They then built a rotary and band saw mill which was successfully operated until about 1893, when it was destroyed by fire. They at once erected another mill containing two band saws, and the capacity of their plant now rates at 100,000 feet of lumber, 30,000 lath and 25,000 shingles every ten hours. At the present time they have standing pine timber for several years' operations, and besides cutting their own timber, they buy all the logs they can which are placed on the market. Their product is marketed largely in the east and at Chicago, but they have a planing mill, well equipped, and do a large car trade as well. They have large dockage facilities—30 acres in all, and their property is well connected with the city water-works to protect them in case of fire. Theirs is, without doubt, one of the best equipped and best managed mills to be found in the country and is conducted in a systematic and thorough manner, every branch of the business being kept up to the highest possible mark. All the members of the firm are actively engaged in the business and personal supervision is given to all its details. Mr. D. A. Duncan was for many years prior to 1880, engaged in the lumber business at East Saginaw, Mich., with Mr. James Gamble, now of Detroit, Mich.

George S. Shaw was for nearly forty years one of the best known and most enterprising lumbermen of the Mississippi valley, being from 1865, one of the leading citizens of Davenport, Iowa, and since 1883 prominently connected with the Knife Falls Lumber Company of Cloquet, Minnesota.

Mr. Shaw was a native of Vermont, having been born at Chelsea, Orange county, April 14, 1824, and his earlier history is that of a typical New England boy, of a mould such as the rugged hills of the Green



Geo T Shaw

Mountain state have sent so large a number of stalwart men to people the west, and to set an example of industry, integrity and perseverance, well worthy of emulation.

His boyhood was favored with but three winters of schooling, his summers from an age when he could be useful upon the rocky farm of his parents, being required in the clearing off of the stones and rocks, which in abundance more nearly resembled the thick timber growths of a northwestern forest. At the age of ten years he began to look out for himself, and for two years worked for a farmer for his board and clothing, with the privilege for three months in each year of attending the district school. The following three years he worked as a day-laborer or farm hand, and at fifteen years of age was indentured as an apprentice to learn the house carpenter and millwright trade, and in these he came to be considered as an adept. On completing his apprenticeship he walked to Boston (lacking means to pay stage fare), a distance of 155 miles, and there for two years worked at the bench as a journeyman, and being frugal in his habits saved a small sum of money, while, having gained a reputation for mechanical skill, he began taking contracts in the building line, which proved successful and fairly remunerative. After about four years he removed to Chelsea, a suburb of Boston, and employed his capital in the purchase of lands in that part of the town known as Winthrop, and which was subsequently set apart as a town of that name largely through his efforts, and subdividing as a town plat, he commenced building houses, which he sold or rented as fast as they were completed, and in a short time had built nearly half of the town, and was considered not only its promoter, but its greatest benefactor, and was honored successively with all of its offices from school trustee upward. It was while working in Boston that he, in 1846, was married to Miss Mary Ross of Bakersfield, Vermont. In 1857 Mr. Shaw removed to Chelsea and became especially renowned as a church builder, no less than thirteen such edifices being erected by him in eight years. His health failing him, Mr. Shaw about this time visited the west, in search of a more genial climate, and in 1865 decided to remove to Davenport, Iowa, where his enterprise was soon manifest in the purchase of a tract of land comprising twenty-one acres, and the laying out of "Shaw's subdivision;" he also laid out a tract of ten acres on Carey avenue, and on both tracts erected houses, largely of a character suited to the needs of the working men of the city, giving easy terms of payment. Here also Mr. Shaw was soon recognized as a most valuable citizen, and for many years served as an alderman, whose broad perceptions and interest in the affairs of the city knew no ward boundaries, or selfish private advantage.

In 1875 Mr. Shaw formed a copartnership with Wm. Renwick and E. S. Crossett for the purpose of manufacturing lumber, and the firm leased the mill property of Wm. Renwick at Davenport, and bought pine logs from Wisconsin parties to carry on the business; the mill had a capacity of about 15,000,000 or 18,000,000 of feet annually. In 1883 the pine that Mr. Renwick owned in Wisconsin, had been cut and as the price of logs had increased so that the margin in lumber manufacture had fallen, Mr. Shaw turned his attention toward the location of a mill nearer the pineries, and in November bought the plant of the Knife Falls Lumber Company at Cloquet, Minn. He immediately began the formation of a stock company, and on February 4, 1884, the Renwick, Shaw & Crossett Lumber Company of Davenport, Iowa, was born, with a capital stock of $300,000. This capital was used to complete the purchase of the Knife Falls Company's plant and left them with but little money for the purchase of pine. The plant was a new one and consisted of two circular saws and a gang saw, with a small planer for dressing the few thousand feet required for shipment. The first season's work was not large for this company, as it only amounted to 17,426,000 feet. Mr. Shaw's keen business foresight at once pointed out the necessity of buying pine timber and lands for its future use and as his vigorous policy was not quite to the liking of Messrs. Renwick and Crossett, he, in 1885, purchased their stock in the company, which gave him a much larger interest and more influence.

Moving to Cloquet he took the entire management of the company, and obtaining articles of incorporation under the name of the Cloquet Lumber Company, began the construction of improvements and enlargements which, in 1886, included the addition of a band mill and increased shipping facilities, while the profits from the business were immediately invested in pine land. In 1890 the plant of the Water Power Company of Cloquet was for sale and he bought it. This consisted of a saw mill of one rotary and small gang with a planer of a capacity to handle the output of the mill. The first season's run under his charge convinced him that it ought to produce more lumber, and he put in two band mills, one of them replacing the rotary saw. But this was not enough to satisfy his ambition, and at the close of the season he built an addition and replaced the circular saw, so that in the year 1892 the cut amounted to 60,200,000 feet, beside shingles and lath. The growth of the business had been so great that the provisions of the articles of incorporation restricted its prosperity so that it became necessary to increase its capital, which was done in 1890 and again in 1892, when it became $1,000,000 fully paid up.

In 1893, when the crash in financial circles came, he began the curtailment of his cut at the outset, by closing down the night run in June and the water-power plant in August, so that the cut for that year was only about 45,000,000. He followed the same course in logging for every season until 1898, when he had made arrangements to put in about 50,000,000 of feet.

Mr. Shaw was emphatically a practical man, his early experiences well fitting him for the management of vast interests. Of great executive ability, he was equally at home in the mill and in the counting-room, and was neither backward nor afraid of any kind of labor. Simple in his tastes and devoid of ostentation, he was a man of sterling qualities, and while devoid of political ambition, was a keen observer of public affairs, and public-spirited in the advancement of the interests of the community in which his lot was cast. Liberal in his charities, he yet avoided all notoriety, and only the recipients of his many private acts of beneficence and sympathy with the sorrows of his fellow men, are aware of the extent of that benevolence. He was of a sunny disposition and most popular with those who knew him, and as a business man commanded the respect of his associates and the public with which he came in contact, for his integrity and uprightness in all the relations of life.

As a lumberman Mr. Shaw was held in the highest esteem in the councils of the trade, his advice being recognized as the outcome of keen observation, and a practical knowledge of surrounding conditions. A good judge of standing timber, he was no less practical in his knowledge of conditions connected with its use, not only in logging and manufacturing, but in its practical adaptations to the use of the consuming public. His mills were of the most modern type, and the planing mills connected with them were supplied with those devices best calculated to produce the looked-for results in manufacture and disposition of the product. While not a politician in any sense of the word, Mr. Shaw took a deep interest in all that concerned the welfare of the nation, and during the recent discussion in congress upon the subject of a tariff on lumber, he visited Washington, and is credited with having placed the condition, interests and demands of the lumber industry before the congressional committee, in a clearer and more forcible manner than any other of the many whose advice was sought by that committee. Although a Republican in his political affiliations, his opinions were not based upon a partizan view, but were given as the keen observations of a practical lumberman, who in the past quarter of a century had been connected with the manufacture of fully 750,000,000 feet of lumber.

The wife of his youth, together with two sons and two daughters survive to honor the memory of one of God's noblemen. Of the sons, Edward is a member of the firm of Shaw & Crombie, lumbermen of Atlantic, Iowa, and Willis is a resident of St. Paul. Of the daughters, Mrs. J. E. Lyndes and Mrs. Jules De Lescaille are both residents of Cloquet, their husbands being connected with the Cloquet Lumber Company.

Charles N. Nelson.—In a business which has developed so many brainy men and extensive operators, it is a difficult task to single out any one man and proclaim him as exceeding all the rest in acumen and enterprise, or in the extent of his operations. Still, there are, and have been, operators in the lumber world who deserve to be spoken of in a class whose lumbering operations stamp them as pre-eminently entitled to especial notice, by reason of the prominent position which they have held in the lumber fraternity, and in this class we must include Charles N. Nelson of St. Paul and Cloquet, Minnesota.

Mr. Nelson's father, although of English birth, was an officer in the Danish navy, and Mr. Nelson was born in Denmark in 1841. He came to America in 1861, being then but twenty years of age. The civil war had just broken out, and the martial spirit of his ancestry led him at once to espouse the cause of the country in which he had decided to make his future home, and, enlisting in a Minnesota regiment, he served to the close of the war. Receiving an honorable discharge, he proceeded to Mankato, Minnesota, but soon after was offered a position in the First National Bank of Stillwater, of which Charles Schaefer was president, and obtained rapid promotion to the position of cashier and vice-president, and has for many years been president of the bank, which, but a quarter-century ago, he entered in a supernumerary capacity, and has since classed not only among the wealthier men of the northwest, but among its most astute and able financiers. Mr. Nelson early began to take an interest in the rapidly developing lumber business of the St. Croix river, and invested his savings in pine timber lands. In 1877 he leased the mill at Lakeland, a few miles south of Stillwater, known as the "Munch" mill, which he continued to operate for a number of years, and finally purchased, and it is still in his possession, or that of the company which bears his name.

In the spring of 1877 the extensive mills of the Schulenburg-Boeckeller Lumber Company at Stillwater were destroyed by fire, leaving the year's heavy stock of logs to be manufactured at other mills, and C. N. Nelson took the contract to saw them at his Lakeland mill, and during the season the firm of C. N. Nelson & Co. was organized, being composed of C. N. Nelson and D. M. Sabin. The new firm now made purchase of the mill property of Seymour, Sabin & Co., and entered into a very much enlarged manufacture of lumber, lath and shingles, both at Lakeland and Stillwater. The company also established a large wholesale and retail lumber yard at St. Paul, building a large planing mill in connection with it, and this they continued to operate until March, 1885, when it was sold to the Bohn Manufacturing Company. From 1876 Mr. W. P. Allen was general manager of the manufacturing interests of the firm, and has continued with the business to the present day, being for several years vice-president of the incorporated company. In 1879 C. N. Nelson & Co. gave place to the incorporated C. N. Nelson Lumber Co., of which C. N. Nelson was president (an office which he has since retained), M. M. Darr was elected vice-president and treasurer, and P. M. Ranney secretary, and the company extended its operations by the acquirement of a large body of pine lands on the St. Louis river, and the erection of an extensive saw mill at Cloquet, twenty miles from Duluth, on the St. Louis river and on the lines of the St. Paul & Duluth and the Duluth & Winnipeg railroads. This mill was among the largest which had been erected in the northwest at that time, its capacity being rated at 250,000 feet of lumber, 100,000 shingles and 40,000 lath per day, the product of the year reaching an aggregate of no less than 50,000,000 feet of lumber, 25,000,000 shingles and 8,000,000 lath. In 1889 the Sabin mill was removed from Stillwater and rebuilt at Cloquet on a much larger scale than before, both mills being fitted with the latest improved machinery for the economical manufacture and handling of the product, which was now turned out at the rate of 400,000 feet daily. In 1887 Mr. Darr, who had been connected with the company as vice-president, tendered his resignation, and Mr. Allen was elected to that position, in which he has since continued, in connection with a general management of its logging and manufacturing interests.

In 1892 Mr. Nelson, in behalf of his company, was, after long litigation, awarded a verdict in the supreme court of Minnesota in a case which settled a much-mooted question of the liability of boom companies, much to the satisfaction of the craft at large. The St. Louis River Dalles Improvement Co. had been organized for the purpose of running logs which had been cut upon the St. Louis river. In a heavy freshet, in the spring of 1885, the booms at Cloquet broke, and a large quantity of logs ran through the works of the St. Louis River Dalles Improvement Company into the bay. Claim was, nevertheless, made by the company for driving fees, which the lower courts allowed, but, Mr. Nelson carrying the case to the supreme court, the claim was there held to be untenable, the court holding that it was the duty of the improvement company to make its works impregnable, so that, under all conditions, logs committed to its care could be held and controlled, so that they could be safely delivered to their owners. The failure of D. M. Sabin and the care and annoyance arising from the loss of logs above mentioned, combined with a mass of other cares inherent to the vast business of the company, and his own private affairs, had the effect of undermining the health of Mr. Nelson, and he has since spent a considerable portion of his time abroad. In the spring of 1896 the C. N. Nelson Lumber Co. disposed of its mills, together with a remaining 600,000,000 feet of standing timber, and its interests in the village of Cloquet, to Frederick Weyerhaeuser of St. Paul and F. C. Denkmann of Rock Island, Ill., for the consideration of $1,900,000. The C. N. Nelson Lumber Co. still retains the mill property at Lakeland.

Mr. Nelson is still the president and recognized head of the First National Bank of Stillwater, and is a prominent factor in many of the great enterprises for which the brainy men of the northwest are noted. His history is one which can find its parallel in no other country on the face of the globe, and in his progress through a quarter of a century, from a humble private in the ranks of our volunteer army to the head of great industrial manufacture, and with it a bank presidency, is but another illustration of the opportunities which our country affords to any man who has brains to discover and enterprise to seize the opportunity which lies at his hand, and to enjoy the well-merited success which is not restricted to any class or condition.

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CHAPTER XXXIX.—THE LOWER MISSISSIPPI RIVER.

DUBUQUE, CLINTON, LYONS AND FULTON.

BELOW those points upon the Mississippi river which are treated of in connection with Wisconsin and Minnesota history, are several important cities whose chief industry for the past fifty years has been found in their saw mills and lumber manufacture. These localities being removed at a long distance from the forests of supply, have been compelled to rely upon log stock rafted from the upper streams, the St. Croix, Chippewa and Black rivers being the main reliance, the log stock from which being made up into brails and rafts containing as high as 1,000,000 to 3,000,000 feet, were in the earlier days floated down the river guided by poles and sweeps, but with the adaptation of steam propulsion, have in the later years been towed by powerful tugs, which in their progress down the river as far as St. Louis, dropped off a brail now here, now there, as the mill for which the raft, or a portion of it was destined, was reached. Of a few of the more important of these localities, it is our province to speak.

Dubuque, Iowa, is noted in the 1874 reports as having four mills, viz.: Pelan & Randall, built in 1856, estimated capacity 3,500,000 feet, with one mulay and one circular, employing 35 men, cut of 1874, 1,500,000 shingles; C. N. Clark, built 1865, estimated capacity 3,000,000 feet, with one mulay and one circular, employing twelve men, and cutting 2,000,000 feet in 1874, 3,000,000 in 1875; L. P. Hough, built 1873, cut of 1874, 4,500,000 shingles, 1875, 8,000,000 shingles; Ingram, Kennedy & Day (see sketch O. H. Ingram), built 1856, one circular, one gang, employing 40 men, cut of 1874, 2,600,000 feet, with no record for 1875. The trade at this point, however, rapidly increased, and in 1880 the mills reported a cut of 29,000,000 feet, viz.: J. S. Randall, 2,500,000 lumber; Dubuque Lumber Company, 10,000,000 feet, with 7,800,000 shingles; Ingram, Kennedy & Day, 12,000,000 feet, with 6,500,000 shingles; C. N. Clark & Co., 4,400,000 feet of lumber. In 1892 the mills reporting were the Le Sure Lumber Co., 18,000,000, with 7,500,000 shingles, and the Standard Lumber Co., 40,000,000, with 16,000,000 shingles. In 1897 the Standard Lumber Co., with 36,000,000 feet of lumber, 8,000,000 shingles and 7,000,000 lath, and the Dubuque Wooden Ware & Lumber Co., 8,000,000 lumber and 1,000,000 shingles were the only ones reporting a cut.

W. H. Day.—Among the older operators in the lumber world of the Mississippi river, is W. H. Day of Dubuque, Iowa, who was a native of Ohio, having been born at Freedom, Portage county, in 1841. His parents removed to Columbus, Ohio, when he was but twelve years of age, and gave him the advantages of the schools of that city, with a course of study at Oberlin College. In 1862 he left college to enter the military service of his country, but his college course was so nearly completed that a diploma was awarded him. During the last eighteen months of the rebellion he served on the staff of General Kilpatrick, and was breveted major for meritorious conduct during Sherman's march to the sea. At the close of the war he came west and settled at Dubuque, Iowa, where, in company with Patrick Robb, he, in 1866, formed the copartnership of Robb & Day in the business of lumbering. During the same year Mr. Robb died, and in 1867 Mr. Day entered into partnership with O. H. Ingram and Donald Kennedy, forming the firm of Ingram, Kennedy & Day, in the purchase of pine lands, and the purchase and sale of logs and lumber.

In 1876 the firm erected a saw mill which contained two rotary saws, with shingle and lath machinery, and with capacity for the manufacture of 12,000,000 feet of lumber and 8,000,000 shingles, with a proportionate quantity of lath.

In 1882 an incorporated company was organized under the name of the Standard Lumber Company, of which W. H. Day was elected president, O. H. Ingram 1st vice-president (see Eau Claire), D. M. Dulaney 2d vice-president, George W. Dulaney secretary (see Hannibal), M. H. McCartney assistant secretary and treasurer. This company at various times remodeled the mill by the addition of one band and one gang, and increased it to a capacity of 40,000,000 feet of lumber and 20,000,000 shingles per year, its cut averaging from 35,000,000 to 40,000,000 feet of lumber to the present time, drawing its supplies from the Black, Chippewa and St. Croix streams, and being the most important of the lumbering industries of Dubuque.

Mr. Day has for many years been connected with some of the more extensive lumbering operations of the Mississippi Valley and upon the streams above named, while taking rank among the most enterprising citizens of Dubuque. He is a member of the Mississippi River Logging Company, and of many other enterprises in connection with the lumber business of the northwest, among which are the Rice Lake Lumber Company, Chippewa Lumber & Log Company and Gem City Lumber Company of Quincy, Ill., and is recognized as among the most intelligent and far-seeing business men and useful citizens of Dubuque.

MISCELLANEOUS POINTS.

At Camanche the records of 1875 name Anthony & McLoskey, with one circular cutting 4,000,000 feet of lumber and about 2,000,000 shingles per year.

At Fort Madison, Weston & Co. are recorded as having a mill built in 1875, with two circulars cutting 6,000,000 feet of lumber and 4,000,000 shingles.

A. J. Young

S. & J. C. Atlee with a mill built in the same year, with two circulars, whose cut is stated at 8,000,000 feet, with 21,000,000 shingles.

At McGregor, Iowa, W. & J. Fleming are named with mill built in 1871, with one circular, the cut being placed at 11,500,000 feet and 1,500,000 shingles; this mill continues in the reports until 1891.

Mills have been operated from early days at various other points on the river, including Prairie du Chien, Wis.; Lansing, Iowa; Guttenburg, Iowa; Bellevue; Canton, Mo.; Quincy, Ill.; Hannibal, Mo. and St. Louis, Mo.; the mills at these places varying in capacity from 5,000,000 or 6,000,000 feet yearly to as high as 30,000,000 feet, and while individually of little importance, as points of distribution, form an important item in the grand aggregate of production, which for many years has ranged from 1,000,000,000 to 1,200,000,000 feet of lumber and 500,000,000 shingles at the mills below Minneapolis, to and including St. Louis, Mo.

At Keokuk, Iowa, Wells, Felt & Spaulding had a mill, erected in 1868, containing two circulars, and with a cut in 1874 of 2,000,000 of lumber and 1,500,000 shingles, the cut of 1875 increasing to 4,500,000 of lumber and 3,500,000 shingles; Tabor & Co., built in 1872, had two circulars, which in 1874, were reported to have cut 6,000,000 of lumber and 5,000,000 shingles, increased in 1874 to 7,000,000 lumber and 6,000,000 shingles. This mill in 1880 reported a cut of 10,000,000, with 4,500,000 shingles, increased by 1892 to 14,000,000 lumber and 8,000,000 shingles, at about which figure it was reported from year to year until 1897, when the cut was 12,000,000 feet.

At Sabula, Iowa, the records for 1875 name the mill of E. M. & H. Long, built in 1869, with 4,000,000 feet capacity, operating one circular and a cut for that year of 2,200,000 feet of lumber and 1,200,000 shingles; we miss this mill after about 1890, its yearly cut to that time being about 3,000,000 feet.

CLINTON, IOWA.

While at a distance from the pineries of Wisconsin and Minnesota, whence come their mill supplies, the adjoining towns of Clinton and Lyons, Iowa, with Fulton, Illinois, which lies upon the banks of the Mississippi, opposite its Iowa sisters, have long been important factors in the manufacture of lumber, their combined production for many years reaching a volume of between 250,000,000 and 300,000,000 feet of lumber and from 70,000,000 to 90,000,000 shingles yearly, the log stock for which has been obtained from the booms of Black river at La Crosse, of the Chippewa at Beef Slough and West Newton, and from the St. Croix river at Stillwater, Minn., being rafted down the river from those points in large and well-secured strings and brails towed by steam-boats, and delivered in the various mill booms.

A steam saw mill was built by William G. Haun in 1849 near the mouth of Elk river, ten miles from Clinton, which began operations in the spring of 1850. This was a sash mill, operated by an engine of about twenty-five horse-power, from two cylinder boilers, and with good fuel could cut about 8,000 feet per day, but with green slabs, which alone was the earlier reliance (the burning of sawdust coming later), the shut-down for steam averaged about as much as the running time. This mill was intended to cut pine logs, from small rafts which at this early day came from the Black and Chippewa rivers, its product being utilized wholly for local uses. This mill was, in 1858, removed to a point about one mile up Elk river, and turned into a distillery.

A water mill was built on Elk river early in the "40s" for cutting hardwoods from native timber. This mill was started by Griswold & Dinwiddee, and completed by Thomas Calderwood, who operated it. In 1850 it was run by Charles E. Langford, who, later, built the mill (elsewhere mentioned) at Fulton City. William G. Haun, mentioned above, owned and ran the first steam engine, probably the two first, in the county.

The first saw mill at Clinton was built by Ohio parties in the fall of 1855, but in 1856 was purchased by James Cassidy, who ran it for a year in the manufacture of hardwood lumber obtained from the adjacent forests, but it evidently proved an unprofitable venture, and in 1857 it was dismantled and the machinery sold.

In the spring of 1856 Charles A. Lombard built a mill, upon what is now railroad ground, near the west pier of the bridge, but sold it in January of the following year (1857) to Gray & Lunt, who, shortly after, in the same year, sold it to Chancy Lamb, who operated it successfully until October 6, 1859, when it was destroyed by fire. Mr. Lamb at once rebuilt upon the site of the present brick mill, and with one mulay, one circular and one gang, was ready for operation upon the opening of the season of 1860, his daily cut being about 40,000 feet. This mill burned in 1876, and was rebuilt, with two rotaries and two gangs, ready for operation by May, 1877, with its capacity increased to 125,000 feet per day.

In 1856 A. J. Parmlee built a mill in South Clinton, which did not yield the success which its projector anticipated, and, after remaining idle for several years, was sold to Joseph B. Davis, and soon after was destroyed by fire.

In the spring of 1857 Alfred Cobb of Syracuse, N. Y., built a mill about two miles south of Clinton, and, after sawing one raft of logs, sold out to Coan & Smith, who, not long after, sold to Bomgardner & Byng, who, later, sold to Lamb, Byng & Co, Chancy Lamb & Sons becoming interested in the operation. This mill continued in operation, with capacity for sawing 50,000 feet daily, until January 4, 1877, when it was destroyed by fire, and was rebuilt by C. Lamb & Sons, with one rotary and two gangs, shingle and lath machinery, being ready for operation by May, 1879, with a daily capacity for sawing 50,000 feet of lumber.

In the same locality Wheeler & Warner erected a mill in 1869, containing two circulars, with sawing capacity of 50,000 feet daily. This, in 1873, was purchased by Lamb, Byng & Co., who, in 1878, sold to C. Lamb & Sons, who remodeled the mill in 1886, putting in two band saws and one gang, giving the mill a capacity for cutting 125,000 feet per day. It is claimed that the first band mill ever operated in white pine timber was placed by C. Lamb & Sons in 1884, in their mill "B," which was rebuilt by Mr. Lamb in 1877. It was a characteristic of Chancy Lamb to readily perceive the advantages to be derived from suggested improvements in mill machinery, and he was not afraid to test such improvements as commended themselves to his judgment, as is shown in his practical test of the band saw at a time when all other operators questioned its utility and practicability. It is also claimed that the first movable saw edger ever used was designed by Mr. Lamb, and built in the machine shop of Moeszinger & Gallion at Lyons. Inasmuch as in the course of this history several other claimants for this honor are mentioned, the historian is disposed to suspend judgment upon this point.

In 1868 C. Lamb & Sons built what has long been known as "the stone mill," in which they placed one rotary and one gang, with a sawing capacity of 40,000 feet per day of lumber, with a lath manufacture of 8,000 daily. C. Lamb & Sons now own four mills at Clinton, with a combined output of 450,000 feet of lumber, 90,000 shingles and 60,000 lath per day, or an aggregate of about 80,000,000 feet of lumber, 10,000,000 shingles and 10,000,000 lath yearly.

In the summer of 1858 William J. Young opened a yard at Clinton for the retailing of lumber, which was manufactured by the Ohio Mill Company at La Crosse, Wisconsin. As related in the history of La Crosse, the mill of this company was not being operated successfully, and, upon Mr. Young's suggestion, it was decided to remove it to Clinton, Mr. Young being selected to superintend the removal. On reaching La Crosse, he encountered serious objections on the part of a Mr. Whitney, who had been in charge of the mill and held a small interest. Mr. Whitney sought an injunction from the courts, which were in those days more conservative and hesitant in granting injunctions than at the present time, and, pending action, Mr. Young succeeded in loading the machinery upon boats and removing it out of the jurisdiction of the court. The mill was landed safely at Clinton and ground broken for a new structure on the 1st day of May, 1859, and the mill began operations in August of the same year, with capacity for cutting from seven to ten million feet per year.

In 1866 Mr. Young built the great mill which was for many years quoted as "the largest mill in the world," being operated by an engine of 1,000 horse-power, to one mulay, one large circular and six gangs, with capacity for the manufacture of 50,000,000 feet of lumber and 20,000,000 shingles, with 15,000,000 lath annually.

Up to 1865 the log rafts from up the river were floated to the mills by the natural current of the stream, but about this time Mr. Young tried the successful experiment of expediting matters by towing with a steam-boat, saving weeks of time in the reception of log stock over the slow process of simply drifting. In the construction of rafts, the many augur holes bored into the timber, under the supposition of a necessity for holding the raft together with pins, was a serious impairment of the value of the timber, and Mr. Young introduced what has since been known as "the brailed" raft system, in which loose logs, arranged in tiers or ranks, are merely surrounded by a log boom, and by the raft boat system of towing are swiftly and safely propelled through the water of the river to the mill booms at Clinton and other points. Under the old system it was necessary to secure the logs with poles and pins to a solidity, enabling the building of a shanty for the use of the men, and to provide a firm footing in the use of poles for keeping the raft from the banks and shoal places of the river, and to accomplish this, many, if not all, of the logs must be bored with two-inch, or larger, augur holes, in order to pin the raft and secure the necessary solidity; this involved the loss of quite a percentage of the lumber, throwing it into lower grades, available only for coarser uses, such as sidewalk plank, etc.; the value of a system of rafting which avoided this loss upon so vast a quantity of logs may be readily appreciated, and it was speedily adopted in all the rafting operations of the Mississippi river.

The Clinton Lumber Company had its inception in 1857, when Hosford & Miller built a mill at Lyons, but, having no railroad facilities, they, in 1859, removed the mill to Clinton, where it was rebuilt, and contained two mulays and one rotary saw. In 1861 the mill was still further enlarged by the addition of a gang, to a capacity of 50,000 feet of lumber and 20,000 lath per day. In January, 1866, A. P. Hosford, G. C. Smith, Abraham Siddle, Jerome Scofield, L. W. Buck and S. J. Bishop incorporated the Clinton Lumber Company, and, purchasing the Hosford & Miller property, erected a new mill, with one rotary and a double gang, together with machinery for cutting 40,000 shingles and 20,000 lath daily. In 1880 L. B. Wadleigh bought a controlling interest, and, after running for one year, tore down both mills and erected a mill 72x206 feet, containing two rotaries, two gangs, three double edgers, two trimmers, two shingle machines and two lath machines, with a yearly capacity for the manufacture of 25,000,000 feet of lumber, 4,000,000 shingles and 6,500,000 lath. This mill continued to operate until 1893, at the close of which season its further operation ceased.

William John Young.—Few men have acquired equal prominence in the lumber circles of the northwest with that which must be accorded to that pioneer lumberman of the Mississippi Valley, the late W. J. Young of Clinton, Iowa. Mr. Young was born at Belfast, Ireland, February 27, 1827, and came to America in 1846. Possessing talents of a high order, he at once set about adapting himself to the customs of the country of his adoption and of raising himself to the highest attainable conditions. For several years he found employ in railroad offices and in ten years had so developed, that he was given the position of general freight agent of the Cincinnati, Logansport & Chicago railroad, in which capacity his executive talent attracted the attention of a large circle of influential and moneyed men. The work, however, was not such as gave promise of advancement and wealth, and in 1858 he decided to settle at Clinton, Iowa, in the retail lumber business of that rapidly developing village, and surrounding country. About this time (see history of La Crosse, Wis.) a company of capitalists who had erected a saw mill at La Crosse, becoming dissatisfied with the management of their representative at that place, induced Mr. Young to go there and investigate the conditions of the business, and upon his representations decided not only to change their representative but to remove the mill to Clinton, and induced Mr. Young to take charge of the operation.

The machinery was but a travesty upon what is now known in connection with saw mills, but proved the nucleus of the vast mills and business which but a few years later, brought Mr. Young's name and extensive operations into a prominence, second to no other in the northwest. In 1860 the inadequacy of the plant had so manifested itself that a new mill was erected, which commenced operations in August. Of the character of this mill when first erected we can find no record, but in the statistical reports for 1873 we find the record of "two mills, built in 1867, estimated capacity 50,000,000 feet yearly, operating two rotaries, eight gangs and five double edgers, employing 300 operators;" the cut of 1874 is stated at 29,665,000 feet of lumber and 17,295,000 shingles, that of 1875 being 35,218,000 feet of lumber and 14,470,000 shingles, showing a rapid evolution from the original mill of six to eight thousand feet per day capacity, or the mill of 1860 which succeeded it, and while much larger, proved inadequate to the growing demands of his rapidly extending operations. In twenty years, Mr. Young had become proprietor of the largest saw mill in operation on the American continent. In his earlier venture, the two Cincinnati men who had been connected with the La Crosse mill, and in whose interest it was removed to Clinton, were partners in the firm known as "W. J. Young & Co.," but a few years later Mr. Young purchased their interests, and formed a connection with John McGraw of Ithaca, N. Y., who was a member of the firm of Sage & McGraw of Albany, N. Y. and one of the largest lumbermen of the Allegheny region, and with large mills at Saginaw, and at Belle Ewart, Canada, and in connection with him purchased largely of the lands of the Cornell University of Ithaca, which had been donated by the State of New York from a large grant of Wisconsin lands donated by the general government in aid of its school fund, and which comprised some of the best pine lands of Wisconsin. Under this arrangement the firm name of W. J. Young & Co. was continued until the death of Mr. McGraw, as well as of his daughter Jennie McGraw Fisk, his beneficiary, who died a few years later, when Mr. Young purchased the interest of the estate, and continued the firm name, although being the only party in interest.

The records of 1880 show the cut of Mr. Young's mills to have reached 50,000,000 feet of lumber and 20,000,000 shingles, of which 18,000,000 feet of lumber and 8,000,000 shingles was at the close of the season in pile on his yard, for the supply of his now greatly expanded trade, being seasoned before shipment over a vast territory extending in all directions. But even this vast production did not satisfy the expansive mind and wonderful business talent of Mr. Young, who was not slow to appreciate and adopt every improvement which gave promise of more expeditious and economical manufacture, and with vast expenditures in repairs and the addition of new devices, the mills of 1892 reported a cut of 90,234,156 feet of lumber and 39,144,750 shingles, with a stock on hand at the close of the season of 47,000,000 feet of lumber and 16,000,000 shingles, and at this time no mill in the world, so far as has come to the historian's knowledge, could vie with the "big mill" of Mr. Young. It is needless to add the figures of product for succeeding years, beyond the statement that Mr. Young being an invalid from 1893 to his death in 1896, the mills did not operate in 1895-6, and were subsequently run to but a modicum of their capacity, the cut of 1897 being recorded at but 10,000,000 feet of lumber, 2,000,000 shingles and 1,500,000 lath, a conservative estimate placing the total production since 1858 at 1,700,000,000 feet of lumber and 750,000,000 shingles.

Mr. Young's active mind was at all times employed not only in searching after more economic methods of manufacture and closer systemization of his business, but reached out into a broad conception of all economic problems in connection with his business. The slow system of rafting logs by floatage with the current of the river, did not suit a man with his progressive ideas, and in 1865 he revolutionized the rafting business by a successful experiment of pushing log rafts ahead of a steam-boat, independent of the river currents, and this with his introduction of the system of brail rafting, vastly facilitated the movement of log stock while greatly lessening the expense of delivering them from the booms at Beef Slough and other points, to the mills at various points on the lower river; but for these advantages, the work of the mills could never have reached the vast volume to which they soon attained. Mr. Young was one of the original members of the Mississippi River Logging Company, his interest in which he sold in 1893, after being for many years one of the most active and influential members of the company. Mr. Young died June 8, 1896.

It would be impossible to estimate the influence and value of Mr. Young in all matters pertaining to the lumber trade of the Mississippi river or to the city of Clinton, for he was, during his entire business career, active in promoting all projects which gave promise of adding to the material welfare of the community, and in all respects his judgment was that of a broad-minded and intelligent citizen. Active in banking and other financial circles, he was also philanthropic to a high degree. While it would be repugnant to his ideas of the proprieties to enumerate his charities to individuals or the public, which were ample and unostentatious, his erection and presentation to the Methodist denomination at Clinton, of the beautiful "Esther Young Chapel," the purchase and presentation to the Young Men's Christian Association of Clinton of a beautiful edifice costing $20,000, and the surprise of the Methodists of the neighboring city of Lyons when the sweet tones of a church bell, which, unsolicited, he had caused to be placed in their belfry, first pealed out its invitation to worship, are all but evidences of the deep religious character which in his consistent life dominated his nature. His intense interest in educational matters was manifest also in liberal gifts to Cornell College at Mt. Vernon, Iowa.

Perhaps, however, it was the fatherly interest which Mr. Young took in his army of employes which best illustrates the warm heart and Christian character of the man; none may ever know the extent and value of the kindly words, and timely aid which helped many of the less fortunate in the hour of depression or misfortune. When there was no work for all, he made work, that no deserving employe should suffer from poverty.

He cared little for political honors, but in 1864 yielded to the almost unanimous call of the citizens of Clinton that he should take the mayoralty, and the affairs of the city thrived under his administration. He was for some time president of the Clinton Savings Bank, was a director of the Clinton National bank, and more or less connected with other enterprises looking to the advancement of the interests of the city, and was in all things considered a wise, conservative and clear-headed adviser and unselfish friend.

In 1858 he married Miss Esther Elderkin of Richmond, Ind. She survives him together with six children.

Chancy Lamb.—Few men have exercised a greater influence in the lumber industry of the Mississippi river and of the northwest than did the late Chancy Lamb of Clinton, Iowa.

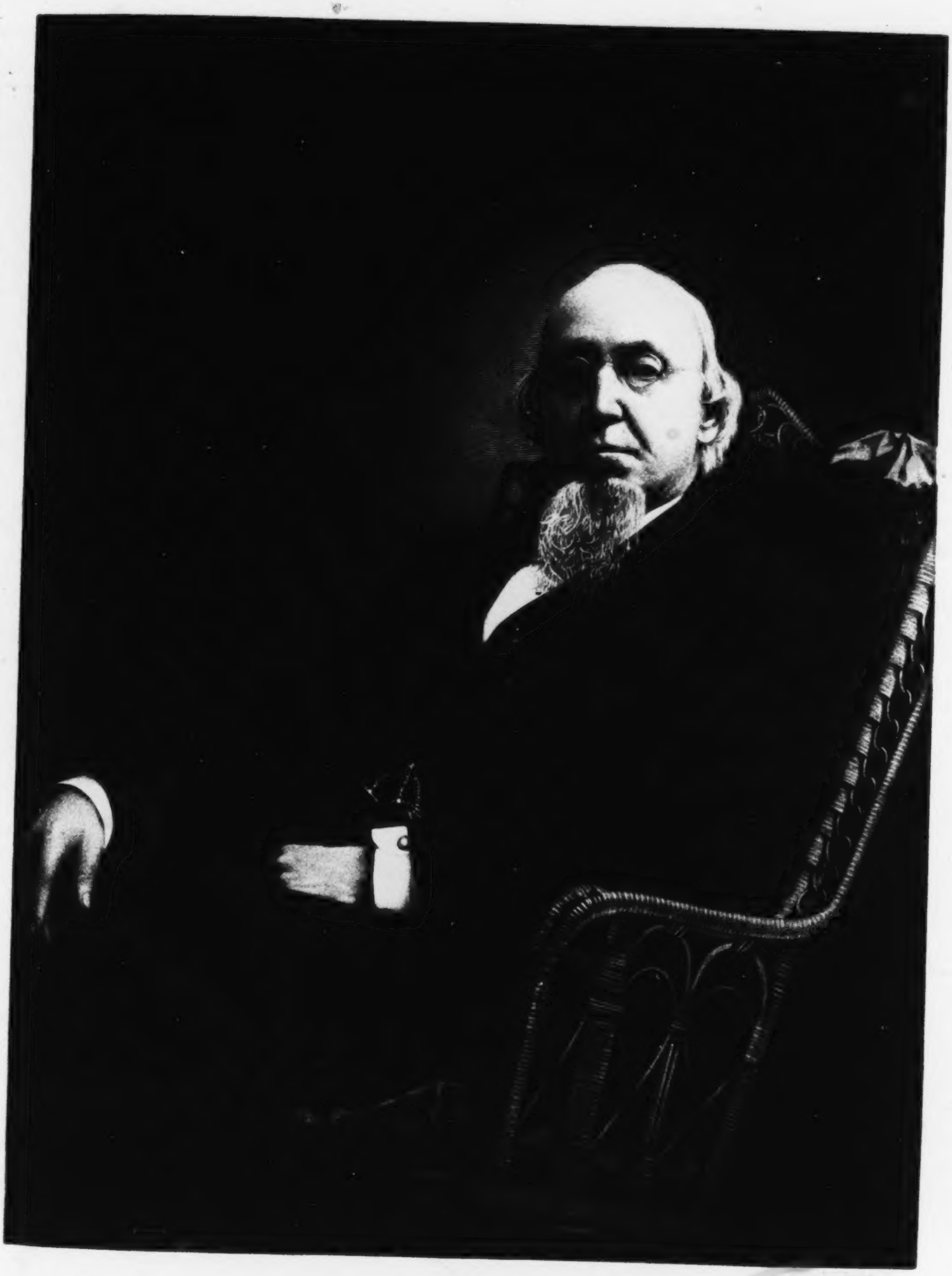
Mr. Lamb was born in Ticonderoga, Essex county, New York, January 4, 1816. He was the son of Alpheus and Mrs. Sophia (Bailey-Wilkinson) Lamb, the father being a descendant of Thomas Lamb, who came from England with Governor Winthrop's fleet in 1630, and settled at Roxbury, Massachusetts. Chancy Lamb spent his early life on a farm, enjoying an occasional winter of schooling in the common schools of the neighborhood. In 1836 he went to Benton, Yates county, N. Y., where he engaged in the manufacture of wagons, and, as well, learned the trade of a millwright. Two years later, in 1838, he removed to Bradford, Steuben county, where he went to work in a saw mill, and for the next three years was thus engaged, the larger portion of the time sawing by the thousand. In the summer of 1841 he commenced the construction of a saw mill on the outlet of Lake Keuka, near Penn Yan, for R. L. Chapman of Steuben county, completing it in the spring of 1842, during which season he operated the mill under contract with the owner. In November of that year he returned with his family to Bradford, where he took a contract to run the saw mill of Cameron, Thurman & Co., and continued in the capacity of superintendent with this firm until the summer of 1844, when he removed with his family to Carroll county, Illinois, where he spent several years in farming. In 1851 he removed to Williamsport, Pa., and accepted the position of superintendent in the mill operations of his former employer, J. C. Cameron & Co., and in the following year operated the mills of this company in Chemung county, N. Y., sawing by the thousand, and continuing in this business for the next five years. In November, 1856, Mr. Lamb again turned his face westward, and for a few months was a resident of Fulton, Illinois, but in 1857 he took possession of the saw mill at Clinton, which he purchased from Gray & Lunt, and which he had helped to build. This mill was burned October 6, 1857, and Mr. Lamb at once proceeded to the erection of a much better mill, which he operated until November 14, 1876, when it, too, was destroyed by fire. Meantime, in March, 1868, he laid the foundations of a stone structure saw mill, which went into commission in September of the same year, which, with the rebuilt mill which replaced the one which was burned, and the subsequent acquisition of the Cobb mill and Wheeler & Warner mill, has been in operation to the present, with a yearly production of about 100,000,000 feet of lumber and 50,000,000 shingles.

Mr. Lamb was one of the most progressive men in the trade, and it is claimed that he was the first man to use the band saw in the manufacture of white pine lumber, his practical experience readily discerning the value of so economical a device, which, in its experimental stages, others were hesitant about testing. He also was among the first to employ steam-boats in the towing of log rafts upon the Mississippi for the more expeditious, as well as more economical, method over the prevailing custom of floating with the current. He from time to time built what may be termed a full fleet of steam-boats expressly for the towing business.

In 1864 his son, Artemus Lamb, and in 1873 another son, Lafayette Lamb, were taken into partnership with their father, and in January, 1878, articles of incorporation were taken out under the name of C. Lamb & Sons, since which date the sons have been actively identified with all of the many improvements and investments which have marked the onward and successful course of the partnership and corporation.

Chancy Lamb was emphatically the architect of his own fortunes, and, while meeting with as many of the adversities which beset the business man, as a majority of his compeers in business, never sought recovery from any of his misfortunes through dishonorable acts, and, while conservative and prudent, was free from parsimony and aught which could be termed niggardly in the conduct of his business or in his relations to society.

Mr. Lamb was from the first, president of C. Lamb & Sons, incorporated; was also president of the Clinton Savings Bank, and a director in various companies, including the Mississippi River Logging Company; the Mississippi River Lumber Company; the Shell Lake Lumber Company; the People's Trust & Savings Bank of Clinton; the Clinton National Bank, and of the Clinton Gas Light & Coke Co. and Clinton Water Works Co. He was an ardent Republican in politics, but never sought nor held office, never seeking to unduly influence the opinions of his employes upon political matters, recognizing the duty of all men to exercise an intelligent and unbiased franchise according to individual and con-



Chancy Lamb

scientious judgment. While never a member of any religious body, his life was moulded upon the highest plane, and, with decided opinions upon religious subjects, he was a liberal giver to all worthy church and other work calculated to raise the standard of morality, and ameliorate the condition of his fellow men.

Mr. Lamb was married November 16, 1839, to Miss Jane Bevier of Bradford, Steuben county, N. Y., whose father, David Bevier, served as adjutant of the Third Ulster County, N. Y., regiment in the revolutionary war. Mrs. Lamb was the faithful partner in the adversities and successes of her husband for the long period of fifty-eight years, during which time two sons, Artemus and Lafayette, and four daughters, Augusta, Celesta, Merrette and Emma E., were born to them; of these all are still living except Celesta and Merrette. After a long and useful life, surrounded by a loving and affectionate household, supplemented by the affections of the community of which she had for so many years been an integral part, Mrs. Lamb was, on March 5, 1897, called to her reward, soon to be followed by her bereaved companion, whose sorrowing heart found surcease from affliction when, but four months later, on July 12, 1897, he heard the summons which called him to a happy reunion with the beloved, in the realms of eternal rest.

Curtis Bros. & Co. have for many years ranked among the more important of the manufacturing houses of Clinton, their operations in the manufacture of doors, sash, blinds and general house finish entitling them to mention as one of the leading concerns of the nation.

The firm was started in 1866 by Charles F. Curtis and W. G. Hemingway, who had been engaged in the grocery business for a short time in Clinton. They bought out the interest of Claussen & Thornburg in the firm of Claussen, Thornburg & Smith, who were running a small sash and door factory and the original firm was known as Curtis, Hemingway & Co. In 1867 George M. Curtis bought out the interest of Mr. Smith, and in 1868 Charles F. and George M. bought out Mr. Hemmingway's interest. In the fall of 1868 Judson E. Carpenter, who is an uncle of Charles F. and George M., came here from Rochelle, Ill., and invested with them, and the firm name, adopted at that time, was Curtis Bros. & Co., and so remains to the present day. Their business at that time, as well as at the present, was the manufacturing of sash, doors, blinds, mouldings, stair work and everything pertaining to that class of manufacturing. On June 1, 1881, they incorporated the business, without changing the name of the concern. The incorporators were Judson E. Carpenter, George M. Curtis, Charles F. Curtis, Cornelius S. Curtis, Fowler P. Stone and George W. Allen. At the time of the incorporation, they immediately started to build a factory at Wausau, Wis., which was completed by January 1, 1882, and started to manufacture goods at that time, under the management of Cornelius S. Curtis and Fowler P. Stone. A few years after, Mr. Stone retired from the company and is now a member of the Stone & Mortenson Lumber Co. at Wausau, Wis. The Wausau business was a branch of the original house at Clinton until January 1, 1893, when it was sold to the Curtis & Yale Co., the new company, at the same time, buying out Carpenter Bros. & Co. of Minneapolis, who were engaged in the jobbing of sash and doors at that point. The business at Wausau is now managed by Cornelius S. Curtis and their branch distributing house at Minneapolis, by Stephen M. Yale. In January, 1898, Curtis & Yale Co. established a warehouse at Milwaukee, which is under the management of A. L. Annes. In January, 1894, Curtis Bros. & Co. opened a branch house, for the distribution of their goods, at Lincoln, Neb., which is now known as the Curtis & Bartlett Co. and is under the management of Paul Bartlett. In May, 1897, they opened a branch house at Sioux City, Iowa, which is still a part of the original house at Clinton, while the Lincoln house is a separate company. From 1881 to 1895, Curtis Bros. & Co. indirectly operated a large saw mill at Rib Lake, Wis., having in that locality a large tract of pine land. The lumber manufactured there was largely used at the factories in Clinton and Wausau.

Charles F. Curtis, the founder of the business, was born at Oxford, Chenango county, New York, in 1846, and moved with his parents, John S. Curtis and Elizabeth Carpenter Curtis, to Rochelle, Ill., in 1856, where he lived and worked on a farm, attending the country schools until he was 19 years old. He then attended school in Chicago one year, came to Clinton, engaging in the grocery business for a short time and then started the sash and door business. While the manufacture of sash, doors, etc., has been the business which has occupied the most of his time, he has been prominently identified with other business enterprises, having been a director in the City National bank of Clinton for many years.

George M. Curtis was born at Oxford, Chenango county, New York in 1844, moving with his parents to Rochelle, where he lived and worked on a farm, attended and taught school until 1865, when he engaged in the coal business at Courtland, Ill., coming from there to Clinton in 1867 and associating himself with his brother, Charles F., in the sash and door business. Mr. Curtis has been very prominent in the business and political circles of the state of Iowa, he, like his brother, being interested in other business enterprises and is, at the present time, and has been for a number of years, vice-president of the City National bank of Clinton. In 1887 he was elected to the legislature of Iowa and served one term. In 1894 he was elected to represent the second congressional district of Iowa in congress and again reelected in 1896, and at the present time is serving his second term in congress.

Cornelius S. Curtis was born in Oxford, Chenango county, New York, in 1851, and moved with his parents to Rochelle and again, with his parents, to Clinton in 1869. He was engaged in the grocery business in Clinton for a while and later in business at Denison, Iowa, returning to Clinton to take a position with Curtis Bros. & Co. and in 1881, when the firm was incorporated, went to Wausau, Wis. and since that time has been at the head of the Wausau business. He, like his brothers, is also interested in other enterprises, the principal one being the Fenwood Lumber Co. near Wausau, Wis.

Judson E. Carpenter, who is an uncle of the Curtis brothers, was born in Oxford, Chenango county, New York, in 1835, where he lived on a farm, taught school until 1855, when he removed to Rochelle, Ill., where he bought and operated a farm for a few years, when he went into the coal business at Rochelle, retiring from that business to engage with the Curtis brothers at Clinton, Iowa, in 1866 and is still the president of Curtis Bros. & Co. In 1893, he engaged in the lumber business with his sons at Minneapolis, the firm now being known as the Carpenter-Lamb Co. He is also, at the present time, vice-president of the Brainard & Northern Minnesota Railroad, with headquarters at Minneapolis, Minn.

George W. Allen was born in Rochester, New York in 1844, moving with his parents to Boston in 1846, where he attended school until 1862, when he went to Rochelle, Ill., and immediately commenced working at the carpenter's trade, continuing same until 1868, when he went to Clinton, Iowa, and took a position in the factory of Curtis Bros. & Co., where he remained until 1876, when he went into the office and in 1881 became a member of the company. He has had, for many years, the supervision of the odd work department of Curtis Bros & Co.

LYONS, IOWA.

The levee at Lyons afforded admirable facilities for the location of mills upon its high and dry banks, and the sloughs just above Fulton, and between Clinton and Lyons, provided excellent harbors for the storage of logs.

To Samuel Cox and G. W. Stambaugh belongs the honor of being the pioneer lumbermen at a point which has since proved to be one of the most advantageous upon the river for the manufacture and distribution of lumber. Cox & Stambaugh built a mill in 1854 upon the site more recently occupied by the machine shop of Cummings Bros. This mill, which ran a planer and lath machines, was burned in 1856 and immediately rebuilt by Stambaugh alone, who continued to operate it until his death; in 1867 it was dismantled and the frame was for many years utilized as an ice house. During its operation J. D. Regan ran the lath machinery, and rigged a machine on the bolting saw of the lath mill, for sawing 6-inch shingles for local use.

In the latter part of 1855, Cox, Johnson & Cox built a mill which was doing a fine business until the financial crash of 1857, when the firm went down in the general wreck. In 1855-6, also, John Pickering built a mill just above the location for many years past occupied by the mill of David Joyce.

In 1857 Capt. Beckwith built and operated a mill near the upper debouchment of the slough into the main river, and about the same time A. T. Cross built a mill on the site later occupied by the warehouse of the paper mill. In 1856, also, Daniel Dean and William Swanson built a shingle mill just above the Stockwell site. In 1860 Ira Stockwell purchased the old Cox mill and in 1867 bought the Stambaugh mill, which he ran until 1870, when, to concentrate his business, the machinery of the Stambaugh mill was added to that of the Cox mill, giving it a sawing capacity of 100,000 feet daily; fire destroyed this mill on May 19, 1876.

In the spring of 1874, L. B. Wadleigh, E. P. Welles and D. J. Batchelder purchased the Haun property and reconstructed the old saw mill, putting in two rotaries and a gang, giving it a capacity of 60,000 feet per day, and converted the stone grist mill into an auxiliary building, closing the gap between the two with a brick engine and boiler room.

In 1877 the firm of Welles, Gardiner & Co. was instituted, Stimson B. Gardiner with his two sons Silas W. and George S., having purchased the interest of Mr. Wadleigh. In 1878 the Gardiners and D. J. Batchelder purchased the interest of E. P. Welles, making no change in the firm name until, in 1879, C. F. Welles was added to the company, which now took out articles of incorporation under the name of "Gardiner, Batchelder & Welles," with capital stock of $200,000; S. B. Gardiner was elected president, D. J. Batchelder vice-president, and S. W. Gardiner secretary and treasurer. In 1881 the company built another mill just above the first one, in which they placed one rotary and a Wickes gang (the first of this make on the river), giving the mill a capacity of 100,000 feet of lumber, 40,000 shingles and 30 000 lath per day. In 1887 the old Haun mill was improved with a Wickes gang and Wilkins band mill, and a large planing mill was added to the plant.

With these improvements the cut of the company reached 225,000 feet of lumber per day, or 40,000,000 feet of lumber and 10,000,000 shingles per season. The operation was closed in 1894 with the exhaustion of the timber supply of the company.

In 1861 David Joyce leased the Stambaugh mill, purchasing his log stock in the raft and disposing of his lumber in a retail yard. In 1869 in company with S. I. Smith he erected a mill containing one circular and a gang locating on what was known as the Ringwood Slough. This mill had a sawing capacity of 60,000 feet of lumber, 40,000 shingles, and 15,000 lath daily. In 1873 Mr. Joyce purchased the interest of his partner and became sole owner. This mill was burned in July, 1888, and the erection of a new mill was at once undertaken which began operations in May, 1899, equipped with two bands, together with shingle and lath machinery, for the manufacture of 100,000 feet of lumber, 40,000 shingles and 20,000 lath per day, which he continued to operate until his death April 7, 1895, subsequent to which time the mill has been operated by his son W. T. Joyce; connected with the mill was an extensive planing mill for the finer manipulation of the stock before shipment. For many years previous to 1889 a sash, door and blind manufactory was carried on by Mr. Joyce in connection with his lumber manufacture.

David Joyce.—The lumber business of the northwest has developed many business men whose abnormal talents, as developed in business enterprise, and in leadership of their fellow men, have excited the admiration of all who came within the scope of their influence, and it is difficult to name one among the many, who answers more nearly to such a character than the late David Joyce of Lyons, Iowa.

Mr. Joyce was born at Mt. Washington in the town of Sheffield, Berkshire county, Massachusetts, February 26, 1825, and was descended from old Puritan stock, the sturdy character, independence and uprightness of which, was largely developed in his own life. His father, John D. Joyce, conducted a blast furnace, machine shop and foundry in Berkshire county (removing in 1844 to Salisbury, Ct.), and gave his son such moderate education as was afforded by the common school, until at the age of twelve years he was given wages as the driver of one of his father's teams. Desirous of learning and of aspiring disposition, he developed a taste for mathematics, and as well for the mechanic arts and not only acquired a knowledge of machinery and of the foundry business, but became a practical civil engineer and surveyor, making the instruments of this profession with his own hands. He continued in connection with his father, and in casual pursuit of the business of a surveyor, until he reached the age of thirty years, when he engaged (1848) in a mercantile business, assuming full control of two general stores.

In 1857 he enlarged his business by the purchase of that of his father at Joyceville in the town of Salisbury, uniting all into one, and continued in its conduct until 1860, when he disposed of his interests and turned his face to the growing west, which he had visited as early as 1854, remaining for nearly two years. Reaching Lyons, Iowa, he, in 1861, leased the Stambaugh saw mill, purchased a stock of logs, and opened a retail lumber yard. Continuing in the manufacture and sale of lumber, increasing his trade from year to year, he, in 1869, entered into partnership with S. I. Smith, and Joyce & Smith erected a saw mill on Ringwood slough, which contained one circular and one gang, with capacity for sawing 50,000 feet of lumber and 25,000 shingles per day. In 1873 Mr. Joyce purchased the interest of his partner and became sole owner of the property. With numerous improvements and extensions of business, his operations increased, and with the passing years David Joyce came to be recognized as one of the leading and most influential men of the Mississippi Valley. In July, 1888, his saw mill was destroyed by fire, and before the embers were cool, plans were laid for rebuilding upon a more enlarged and modern scale, and on the opening of the next season, in May, 1889, a modern mill containing two band saws, with shingle and lath machines was set in operation, with a cutting capacity of 100,000 feet of lumber, 40,000 shingles and 20,000 lath daily. This mill has continued in operation until the present time, the extensive business in its various ramifications which had been built up by Mr. Joyce, being later conducted for the estate by his son, William T. Joyce, who has for many years been connected with his father in its development, and is now conducting the business on his own account. A complete history of the various business enterprises of Mr. Joyce from the time of his arrival at Lyons in 1860 would fill a volume. For a time (1854-5) he engaged in the purchase and sale of live stock, and becoming acquainted with the country, perceived the great importance of its lumber industry, and having made advances to the owner of the Stambaugh mill, operated the mill for a time and subsequently opened a retail lumber yard for the sale of lumber purchased in the raft. With a rapidly extending trade he built the mill before mentioned, in connection with Mr. Smith, and with its destruction and rebuilding upon a larger scale, established retail yards at a dozen favorable points in Iowa for the distribution of his product. Constantly expanding his business, his purchases of pine lands in northern Wisconsin, embraced hundreds of thousands of acres, and he became largely interested in the manufacture of lumber at several interior points, and at his death was connected in an official capacity with many of the larger industries of the country both north and south. He was president of the First National Bank of Lyons, of the Trinity County Lumber Co. of Groveton, Texas, of the Langford & Hall Lumber Co. at Fulton, Ill., of the Benjamin Machine Co. of Evanston, Ill., was secretary and treasurer of the Barronett (Wis.) Lumber Co. and of the Shell Lake (Wis.) Lumber Co. He was secretary and a large stockholder in the White River Lumber Co., Mason, Wis., the Park Hotel, Hot Springs, Ark., the Mississippi River Logging Co., etc., etc.

As a public-spirited man he was ever on the alert to add to the growth and prestige of the city of his adoption, and was instrumental in securing the construction and built the first street railroad between Lyons and Clinton, which was under his general management until the fall of 1891.

He was a man who cultivated the confidence and friendship of those whom he employed, many of whom remained in his employ for long periods of time, which is the best evidence of his cordial, helpful and appreciative consideration of their interest, the humblest of his employes finding a hearing, and the readiness to advise, and if need be to aid, in their difficulties, which was accorded to the wealthy and more influential. He was ever ready to assist in the forwarding of any worthy object, charitable or religious, and while pronounced in his political views as a member of the Republican party, was tolerant of the views of those who differed with him upon political subjects.

Often urged to accept public office he sturdily refused, although at one time under the peculiar conditions in which the city was placed, he yielded to the demands of the citizens who thought him the best man to overcome the difficulties which beset them, and from 1872 to 1876 filled the mayoralty chair, in which he demonstrated that financial ability which had been manifest in his private business. When he assumed the reins of government the bonds of the city were selling at forty-five cents on the dollar, when he left the office the treasury was in position to pay one hundred cents on the dollar for every claim which existed against it.

Mr. Joyce was a remarkable man in every respect, of large frame and commanding physique, he was possessed of a clear brain, and indomitable will, with the rare faculty of weighing men and measures, and to see and to grasp opportunities, with a sound and well balanced judgment. Men might differ with him, but none questioned his integrity and none ever had occasion to doubt the fulfillment of his promises. Active and alert, idleness and inactivity were unknown factors of his being, and while engaged in stupendous enterprises which would tax the courage and endurance of the ordinary man, he yet found time to cultivate those home and social relations which endeared him to all with whom he came in contact. Truly may the reader of this history in future generations say, "there were giants in those days," as they read the historian's record of this wonderful man.

In 1858 Mr. Joyce was married to Miss Elizabeth F. Thomas of LeRoy, N. Y., who with one son, William T. Joyce, was left to mourn the loss of a loving and faithful husband and most exemplary father and citizen, but Mrs. Joyce survived her partner of many years of happiness, but four brief months, passing away April 7, 1895.

Mr. Joyce was on November 7, 1894, stricken with paralysis, while sojourning at the West hotel in Minneapolis, and on the 3d of December following, suffered a second stroke which terminated fatally on the following day. That the historian has indulged in no fulsome eulogy of this grand man, was fully evidenced by the large attendance of prominent men from many sections of the country, who joined the large concourse of his fellow citizens, and his many hundreds of employes, in paying the last sad tribute of respect to one who was held in universal esteem.

Stimson B. Gardiner, who has been identified with the lumber manufacturing business in Clinton and Lyons, Iowa, for the past thirty years, or since 1867, is a lineal descendant of and the seventh generation from Lieut. Lion Gardiner, one of the founders of New England and of the earliest Long Island colonial town, East Hampton.

["The earliest English soldier immigrant was Miles Standish; later came John Endicott, Israel Stoughton, John Mason, John Underhill, Simon Willard, Robt. Seeley and Lion Gardiner, all of whom participated in the Indian wars in Connecticut. These, with others, penetrated the wilderness, repelled the savages, formed settlements, gathered the churches, kept the schools, made their own laws and governed themselves. Of such were the founders of New England." (Vide "Lion Gardiner and His Descendants," p. 45.) Lieut. Gardiner and wife landed at Boston, November 28, 1635, where the town authorities soon after engaged him, as engineer, to complete the fortification of Fort Hill. In the spring of 1636 he built Fort Saybrooke, at the mouth of the Connecticut river, and commanded it throughout the Pequot Indian war, after which he bought from the Indians what is now known as Gardiner's Island, an estate of some 3,300 acres, lying east of Long Island. His son, David, born April 29, 1636, was the first child born of English parents in Connecticut.]

Stimson B. Gardiner was born in the town of Wayne, Steuben county, New York, August 28, 1819. His father, Lion Gardiner (sixth generation), had been married twice, and was the sire of nineteen children, eleven by his first and eight by his second wife. He was not rich in this world's goods, and the family being so large, the boys were obliged to seek outside employment early in life. After obtaining a common, or country-school, education, which he developed and enlarged later by study as opportunity offered, he engaged as a farm hand at the age of fifteen years.

Steuben was a heavily timbered county in those days and lumbering a large industry, largely with beautiful white pine, whole sections of which produced 100,000 feet to the acre, the product going by water (canal, lake and river) to Albany and other markets in the eastern part of the State; and so it came about, after four or five years of farming, that Gardiner engaged his services in the lumbering operations of Richard L. Chapman, who was operating on an extensive scale, having a saw mill near Penn Yan, Yates county, N. Y. While engaged at this mill he met for the first time Mr. Chancy Lamb, then a wheelwright and millwright, who had formerly lived at Lake George, N. Y.

While repairing this saw mill, and, later, in building another and larger one on the same site, a strong friendship grew up between these two men, and after Gardiner was married (May 2, 1844, to Miss Nancy Bonney, daughter of Jethro and Abigail (Genung) Bonney of Penn Yan, Yates county), they, Mr. and Mrs. Chancy Lamb and child (Artemus) and Stimson B. Gardiner and wife emigrated together into the then far west, that is to say, near Mt. Carroll, Carroll county, Ill., where they continued to dwell as neighbors and friends for three years, sharing each other's experiences in the joy, sorrow, prosperity and privations of pioneer life on the untamed prairies of Western Illinois.

In the spring of 1847 Gardiner was offered again the charge of the "Chapman mill" at Penn Yan, and with his wife and infant son of seven months (Silas Wright Gardiner, who had been named for the illustrious governor of York state by a great admirer of his, Mrs. Chancy Lamb), he returned to the Empire State again to engage in lumbering.

The business flourished for several years and in its enlargement Gardiner, in 1851, went to Tioga, Pennsylvania, taking his family, and erected a large gang saw mill for Mr. Chapman, but soon after its erection there came a crash in lumbering affairs which swept away Chapman's fortune and that of his associates.

On March 9, 1848, a daughter, Sarah Elizabeth, was born to Mr. and Mrs. Gardiner at Penn Yan, who, on October 17, 1866, was married to Lauren C. Eastman of that place. They are now living in Clinton, Iowa, Mr. Eastman having been the chief in the office force of C. Lamb & Sons for the past twenty-five years. They have two daughters, Nina (Mrs. W. B. Rogers of Laurel, Miss.), and Ida Gardiner Eastman.

After the Chapman failure, Mr. Gardiner engaged in various pursuits, one of which was the manufacturing of chain pumps at Napanee, Canada.

In 1854 he entered into a copartnership at Penn Yan, N. Y., with Mr. B. W. Franklin, the business being the sawing of lumber and the manufacture of land plaster or fertilizer, which was made by grind-

David Joyce

ing to flour the peculiar rock found and quarried at Cayuga Lake.

On April 12, 1854, his youngest son, George S. Gardiner, was born. (George S. was married in Clinton, Iowa, April 24, 1877, to Catherine, daughter of Chas. B. and Theresa Marshall, and has two daughters, Juliet and Rachel; their home is in Laurel, Mississippi, and he is president of Eastman, Gardiner & Co., lumber manufacturers at that place.)

During the great oil excitement in Western Pennsylvania in 1864-5, Gardiner made some investments there that for a time were very remunerative, but was finally drawn into the maelstrom of speculation, which, collapsing, he went down with many others to financial ruin.

In 1866 he sold his farm in town of Benton, near Penn Yan, and removed west. After living in Chicago a year, he removed to Clinton, Iowa, in the summer of 1867, and engaged his services to C. Lamb & Sons, and in 1869 bought a small interest in one of their saw mills, known as the Lamb-Byng Co. mill. The business of this mill was soon enlarged by the purchase of the Wheeler & Warner mill, and both were operated by the Lamb-Byng Co. until the spring of 1877, when Gardiner sold his interest to C. Lamb & Sons, and with his sons, Silas W. and George S., bought out most of the L. B. Wadleigh interest in the Wadleigh, Welles & Co. mill at Lyons, Iowa.

In 1891 this business was incorporated as Gardiner, Batchelder & Welles, with Stimson B. Gardiner as president and Silas W. Gardiner secretary and treasurer, and operated the two saw mills, producing about forty million feet annually until 1894, since which time they have not been operated.

Mr. Gardiner, at this writing, October, 1897, is interested with his sons, Silas W. and George S., and Messrs. Lauren C. and Chas. S. Eastman in the long leaf yellow pine lumbering business of "Eastman, Gardiner & Co." at Laurel, Mississippi.

He, with Mrs. Gardiner, live in a comfortable, quiet and happy home in Clinton, Iowa, surrounded and highly honored and respected by hosts of warm, loyal and congenial friends.

FULTON, ILLINOIS.

The history of Clinton, Lyons and Fulton are practically one so far as the lumber manufacture is concerned, while the surrounding conditions make it advisable to treat of them separately.

In 1845 John Masters built a water saw mill at Fulton, which he located on "Cat Tail Slough," some distance above its mouth, for the manufacture of hardwood timber such as grew in the neighborhood. He disposed of a half interest to one McKenzie, but the mill was not such a success as had been hoped for, and it was purchased by a Mr. Ritchie, who ran it for a time, but not finding it any more profitable than did his predecessors, the mill was torn down.

In 1854 Charles Dement built a mill at the mouth of Cat Tail Slough in which he placed one rotary and one mulay, and in an upper story arranged a sash, door and blind manufactory. This mill was run by steam and cut about 15,000 feet per day.

In 1855 Stover, Emmett & Co. built a small steam mill on the northwest quarter of section 21, with one circular, manufacturing about 8,000 feet per day. This mill ran until 1858, when it was dismantled and the machinery removed.

In 1862 Charles E. Langford rented the Dement mill, which he ran for one year, it being purchased in 1863 by W. P. Culbertson and L. Smith, who ran it for two years, when Smith sold his interest to E. P. Welles, and Langford & Welles operated the mill until 1869, in April of which year Smith, in connection with J. M. Fay, purchased the Welles interest, and the firm became Culbertson, Smith & Co., who continued the business until the fall of 1877. In 1879 the property was purchased by Langford, Hall & Co., who tore down the old mill, whose capacity had been rated at 25,000 feet of lumber, 12,000 shingles and 8,000 lath daily.

In 1865 Charles E. Langford built a mill on the present site of the Langford & Hall mill, in which was one mulay and one rotary. During the following year Warren P. Hall became a partner and the firm of Langford & Hall was instituted, and the mill capacity increased to 3,000,000 feet per season. In 1875 the firm commenced the erection of a new mill which began operations the following season, with a double rotary and fifty-inch gang, giving a cut of 75,000 feet of lumber, 20,000 shingles and 15,000 lath daily. In 1876 the business was incorporated under the name of the Langford & Hall Lumber Company, and has so continued. In 1887 the double rotary was removed and a band saw substituted. In 1888 a reorganization of the company took place, David Joyce purchasing the interests of both Langford and Hall, and David Joyce became president, W. T. Joyce vice-president and George D. Sardam secretary and treasurer. In 1891 a Wickes gang was added, which with an improved edger and trimmer brought the capacity of the mill to 95,000 feet of lumber, 40,000 shingles and 18,000 lath daily.

While data is lacking from which to determine the total cut of this important center of lumber production during the earlier years of its development, a careful calculation of the product makes the probable aggregate production no less than 4,700,000,000 feet of lumber, with 1,500,000,000 shingles and 700,000,000 lath. The figures, while perhaps less rather than in excess of the actual output of the mills of the three towns of Clinton, Lyons and Fulton, suffice to rank this point among the more important centers of lumber production in the northwest.

As will be seen from the foregoing, Messrs. Lamb, Joyce and Young have held a pre-eminent position in the lumber development of these localities, each at some time being connected with the incorporation of most of the important ventures in the building of mills, either in an official position or as stockholders. Each of these gentlemen was actively interested in the formation and operation of the Mississippi River Logging Company and the Chippewa Lumber and Boom Company, of which extended mention is made elsewhere in this work.

CHAPTER XL.—THE LOWER MISSISSIPPI RIVER. (Continued.)

DAVENPORT, ROCK ISLAND, MOLINE, MUSCATINE, BURLINGTON, HANNIBAL, MO., ETC.

THE "tri-cities" have cut a by no means unimportant figure in the lumber production of the Mississippi river. So early as 1836 Capt. W. B. Clark (who is still living) built a water-power mill on Duck Creek, about three miles above Davenport, where he manufactured lumber from the native timber of hardwood and cottonwood, which was found on the river bottoms. This was, of course, a small upright mill, no other being known to the day, in the western country at least. That it was a pretty good mill is evidenced by its sale, shortly after, to Doolittle & Montgomery of Connecticut, for the price of $9,000; beyond the fact that this firm operated the mill for some time, we learn nothing of its subsequent history.

In 1838 a steam saw mill was built at Rockingham, a rival town a few miles down the river from Davenport, by John Sullivan, but it was probably of little importance beyond its convenience to the immediate neighborhood.

We learn of no other mills in this neighborhood until about 1849, when a man named McCartney built a mill at Davenport, about one-half mile below "the Ferry landing," as the present site of the Seiffert & Wiese lumber yard was then known. This mill was later known as the "Judge Grant" mill, as it fell into the hands of that gentleman soon after its erection, and about the same date a mill was erected by Boswell & Allen, which was destroyed by fire some six years later, not having, in the meantime, cut any great figure in lumber production.

About 1851 Strong Burnell erected the fifth mill of this locality, at a point just below the ferry landing, which was for a few years operated by Burnell, Gillett & Co., and in the same year Robert Christy built a mill in East Davenport on the site later occupied by the mill of the Lindsay & Phelps Co. This mill was known as the "Stubbs eddy" mill or landing, so called from the close proximity of the hut of an eccentric old hermit, which was built into a mound, which disappeared when the present improvements were commenced in 1866. In 1852 Cannon & Small built a mill at the extreme west end of the town, which was operated by various parties, John M. Cannon having selected the Hon. George H. French as a partner, and they, in turn, being succeeded by French & Davies, and after the war by Paige, Dixon & Co., who were succeeded in its operation by the Davenport Lumber Co., who operated it for some time. After making several small fortunes for its lucky possessors, it has for some time been out of commission, while still standing. About 1854-5 Renwick & Son built a mill at a point just above the railroad bridge, which, for about ten years, was operated by them, the firm changing to William Renwick, and later to Renwick, Shaw & Crossett, until in 1884, when it was purchased by Weyerhaeuser & Denkman, who have since operated it in connection with their extensive operations on the opposite side of the river at Rock Island. The Strong-Burnell mill, mentioned above, was, in the early "60s," sold to G. K. Bard, a Pennsylvania man, who, after the war, retired and removed back to Pennsylvania, the mill being purchased by L. C. Dessaint, who formed a partnership with a Mr. Schricker under the designation of Dessaint & Schricker, and continued to run the mill until 1868, when Christian Mueller purchased the Dessaint interest, and the firm of Schricker & Mueller continued until the death of Mr. Schricker, in 1883, when Mr. Mueller purchased his former partner's interest and operated under his own name until January, 1895, when, admitting his sons to the business, the mill has since been operated by C. Mueller & Sons.

Soon after selling his interest to Mr. Mueller, Mr. Dessaint purchased the site just below the Stubbs eddy, and in 1870 built a mill which, a few years later, he sold to Price & Hornby, which firm, later, was known as Hornby & Cable, and, by incorporation, has for many years been known as the Cable Lumber Company.

In 1861 James Lindsay, a "down-easter," reached Davenport, and, owning some timber lands on Black river, Wis., engaged in logging, being joined in the following year by another "down-easter," John B. Phelps, and in 1866 the firm of Lindsay & Phelps erected a small mill, operating a circular saw, on the river bank at the upper end of the town; this mill, like a majority of the others which succeeded the earlier ones, was improved from time to time as new improvements were offered to the saw mill world, until, in 1880, when a band mill was added, which, with a gang which was put in in 1867 (being the first gang used in that section of the country), gave them a thoroughly modern plant, which, in the addition of all the modern devices which have been introduced, in the way of gang edgers, trimmers, live rolls, etc., now consists of one circular and a gang, together with a band saw, with an annual production of 25,000,000 feet of lumber, 5,000,000 shingles and 4,000,000 lath. (See sketch.)

Statistics of the volume of manufacture at Davenport previous to 1875 are not available, but the published records of that year supply the following data regarding the mills then in operation and the firms then operating them: Schricker & Mueller: mill built in 1850; capacity, 11,000,000; one mulay, two circulars, one double edger; men employed, 102; cut of 1874, 10,000,000 feet of lumber and 2,800,000 shingles. J. L. Davies & Sons: mill built in 1872;

capacity per season, 9,000,000 feet; one mulay, one circular, one edger; men employed, 90; cut of 1874, 9,000,000 feet of lumber, 3,700,000 shingles. Lindsay & Phelps: built in 1867; capacity, 9,000,000; one circular, one gang, one edger; men employed, 40; cut of 1874, 7,500,000 feet of lumber, 2,000,000 shingles. Renwick, Shaw & Crossett: built in 1852; capacity, 10,000,000 feet; two circulars, one gang, one double edger; men employed, 85; cut of 1874, 7,500,000 feet of lumber and 2,640,000 shingles. Price & Hornby: built in 1868; capacity, 6,500,000; one circular, one gang and one double edger; men employed, 70; cut of 1874, 6,000,000 feet of lumber and 2,300,000 shingles. From this statement it will be seen that at that date the total sawing capacity of the five mills then in operation aggregated 45,500,000 feet of lumber, the mill plants aggregating two mulay saws, seven circulars and three gangs, each mill being supplied with a gang edger, an invention introduced about 1864, which enabled the mills greatly to increase their daily output, and one which the manufacturers of Davenport were not behind their brethren of the saw mill world to adopt; these mills gave employment to 387 laborers in the production of 40,050,000 feet of lumber and 13,490,000 shingles.

While not deeming it important to name the individual operators, the list of whom remained practically unchanged, the cut of Davenport in 1880 was reported at 62,500,000 feet of lumber and 7,800,000 shingles; that of 1892, 84,850,000 feet of lumber and 15,342,000 shingles, and from this date commenced the rapid decadence of this important business, as shown in the figures for 1895, when the reports show a manufacture of but 66,000,000 feet of lumber and 5,325,000 shingles.

The rapid extension of rail facilities from the many mills of Wisconsin and the Upper Mississippi, enabling shipment direct to all portions of the consuming territory of the nation at rates quite as favorable as from points below, where the manufacturers are at the disadvantage of the increased expense of log towage, is an important factor, which is destined speedily to destroy whatever advantages the mills of the Lower Mississippi river may have enjoyed in the past, while the rapid decadence of the timber supply of all sections bespeaks a total cessation in the near future of what has for so many years been a principal source of wealth and prosperity to the city of Davenport, in common with its sister cities.

In addition to the business conducted at the various saw mills at Davenport, there have been several retail lumber yards established from time to time, the more important of which was that of the Seiffert & Wiese Lumber Company, which was organized in 1892 for the transaction of a yard business in pine and hardwood lumber, including southern pine, which was by this time obtaining a strong foothold in the markets of the north, together with southern cypress and Pacific Coast lumber and shingles. This company was incorporated with a capital stock of $150,000, and is officered by H. O. Seiffert, president; H. Wiese, vice-president, and H. Seiffert, secretary and treasurer.

Seiffert & Wiese have several yards in the interior of the State for the retailing of lumber supplied from their yard at Davenport, among which are yards at Avoca, Walnut, Adair, Shelby, Minden, Hancock and Oakland, on the Chicago, Rock Island & Pacific railroad, with Dixon and Eldridge on the Chicago, Milwaukee & St. Paul road, in Scott county. There have been at various times a number of retail yards and yards doing an interior business at various points, among which we may mention Alling & Williams, Connecticut men, of whom Mr. Alling was for many years a lumber dealer at New Haven, Connecticut, to which place he returned and died. Mr. Williams (Henry W.) still resides at Davenport. Daniel Stinchfield was formerly from Maine, and now resides in Minnesota. George E. Wood, for many years a prominent lumber merchant of Chicago, whose mills at Woodboro, Wisconsin, are mentioned in another portion of this work, was for some years a dealer at Davenport. J. F. Barnard, now a commission lumber dealer at Omaha, was for several years proprietor of a planing mill and retail lumber yard at Davenport. All of these parties, with perhaps others, of whom the historian has no record, have at some time assisted in making Davenport noted as not only a local consuming market, but, as well, a distributive one. In this connection it may not be inappropriate to mention that, contrary to the generally adopted custom which has for the past quarter-century or more prevailed among the lumbermen of the principal producing and manufacturing points, Lindsay & Phelps have never employed traveling solicitors or allowed any outside men to dispose of their stock. The custom thus referred to was one which was for many years confined to the wholesale dealers in Chicago and other large wholesale markets, but, with the extension of railroad facilities, reaching to every mill of any consequence in the lumber regions, competition became so strong that for the past fifteen years the bulk of the distributive trade of the north has been carried on through the medium of traveling solicitors, and few of the manufacturers have succeeded in establishing so permanent a line of custom as to be able wholly to dispense with the custom.

Lindsay & Phelps.—Prominent for many years among the mill operators of the Mississippi river have been James E. Lindsay and John B. Phelps, who as Lindsay & Phelps have been for nearly forty years connected with the manufacture of lumber at Davenport, Iowa. Both of these gentlemen are natives of Essex county, New York, where Robert D. Lindsay, father of James, was for many years a lumberman and hotel keeper. James E. Lindsay was brought up in the atmosphere of the saw mill, not only that his father was interested in the business, and owned a water-power saw mill run by a "flutter" wheel, quite up to date at that time, but that a relative and neighbor of his youthful days, was proprietor of a saw mill of the type common to the day, and was the ingenious inventor who conceived the idea which culminated in the mulay saw, and gave the first real impetus to the demand for better methods of making lumber than were afforded by the cumbersome gate or sash saw. Elsewhere in this volume will be found a history of Israel Johnson and his invention, which it is not necessary to repeat. Mr. Lindsay remained in the neighborhood of his native place for several years after attaining young manhood, and was engaged in lumbering pursuits, having for a near neighbor one Philetus Sawyer, who will readily be recognized as in later years one of the most extensive lumbermen of the northwest, and one who for many years represented the state of Wisconsin in the senate chamber of the nation, having risen to wealth and position from a humble saw mill hand in his earlier years.

Mr. Lindsay reached Davenport in 1861, and having in 1856 purchased some stumpage on the Black river of Wisconsin, now proceeded to log and raft to Davenport, having his lumber sawed by the thousand at the mills of that place. In 1862 he was joined by Mr. Phelps who was also reared as a lumberman, and now purchased an interest in the business. In 1866 the firm erected a saw mill at Davenport, in which they placed a circular saw; this mill was improved by the addition of labor-saving appliances from time to time, the first being in the year following the erection of the mill, at which time a gang was added, it being the only gang mill in this section of the country at the time. In 1880 a band saw was added to the plant, while at various times the gang edger, steam feed, live rolls, trimmers and slashers, together with "niggers" for turning logs on the carriage, and many minor appliances were added, transforming the small mill of 1866-7 with its cut of about 45,000 feet per day, into a mill of the most modern character with an output of 25,000,000 feet of lumber, 5,000,000 shingles and 4,000,000 lath per year. The present company was incorporated in April, 1890, its officers being J. E. Lindsay president, R. E. Lindsay vice-president, J. P. Phelps secretary and treasurer, Fred. Wyman assistant secretary and treasurer.

John B. Phelps like his partner came of a race of lumberman, his father, Elihu Phelps, a native of Connecticut (born in 1782), being one of the first to engage in lumbering on the east branch of the Hudson river, and an early settler in the lumbering district of Essex county, New York, where he settled in 1816. Mr. Phelps, like his partner (although a younger man), assisted his father and elder brother to some extent during his youth, although lumbering at that period was done in a very small way, and the family did not have to leave the farm to see, or to take an active part in running the old-fashioned sash saw mill, grist mill and threshing machine, which could be operated on rainy days or other odd times, having only to raise the gate to the flutter wheel which was amply supplied with water from the "Schron" river, a mountain stream which formed the east branch of the Hudson, and proceed to do so much work as the occasion demanded. It is notable that in 1855, when it became necessary to rebuild a house upon the old homestead, to replace one which had burned, some of the material in siding and flooring was purchased at and brought from a distance of fifty miles, so little pine timber could now be found in a neighborhood prolific with excellent pine timber but a comparatively few years before. When, in 1862, Mr. Phelps went to Davenport, he became interested with Mr. Lindsay in the business established by the latter during the previous year, and which has since been conducted with intelligence and success. These gentlemen are brothers-in-law, Mr. Lindsay having, in 1858, married a sister of Mr. Phelps (Mary H.), by whom he has had two sons, both of whom are now connected with the business of the company. Mr. Phelps, in 1869, married Miss C. R. Woodward of Davenport, but has no family besides. Both Mr. Lindsay and Mr. Phelps are ranked among the most enterprising and public-spirited men of Davenport, alive to its best interests and ever ready to aid in any measures looking to the advancement and prosperity of that city; they are both adherents to the doctrines and policy of the Republican party, but have never developed aspirations for holding political office. In furtherance of their business operations, and with an appreciation of the growing importance of the southern lumber fields, they have extensive investments in the valuable timber lands of Arkansas and other sections of the South, from which section of the country it is inevitable that the supply of the immediate future must be sought. They also retain an interest in the Cloquet Lumber Co. of Cloquet, Minn. Thus do we trace the history of these gentlemen from watching the stripping and gradual extinction of the timber lands of the Adirondack region of the east, to the virgin and prolific pine forests of Wisconsin, the denudation of which they have witnessed almost to its complete annihilation, now with prophetic eye turning to the Southern fields which, supplying the coming generation with their requisite demand for lumber, must in turn be numbered among the extinct industries of our land.

Christian L. H. Mueller of Davenport, Iowa, is not only a well-known and highly esteemed lumberman, but is a man who has left his mark upon the history of the age in which we live, being an active participant in those stirring scenes of a half-century ago, which resulted in a more enlightened monarchy, with much greater freedom from enslavement than had for ages been the lot of the German people. Mr. Mueller was born at Heiligenhafen, Holstein, Germany, in 1823. His father was a baker and farmer in a small city, and gave to his son the educational advantages of the neighborhood, until at sixteen years of age the boy was placed under a five years' apprenticeship in a mercantile establishment, which fitted him in 1844 to open up a mercantile business at Kiel, Germany. While thus engaged Mr. Mueller took a deep interest in athletics and was instructor in a Turner society, which, during the winter of 1847-48, secretly organized a volunteer company in the interest of the forces which were operating to secure a greater freedom from the oppressions of the Danish monarchy, and in March, 1848, with some Schleswig-Holstein soldiers and other volunteers, the heroic band attacked a fortified post at Rendsburg, Holstein, which they captured without bloodshed. This precipitated the rebellion of 1848 in Schleswig-Holstein, which is best known to the American people in connection with the name of Carl Schurz,

F. Weyerhaeuser

whose active participation in it resulted in giving to our nation a man whose subsequent history was a credit to himself, and an honor to our nation in his ripe statesmanship and love for free institutions. Mr. Mueller continued in the rebellion and was three times wounded in battle at Idstedt, where after lying helpless upon the battlefield for several hours, he was taken prisoner July 25, 1850, and for nine months lay in a hospital in Denmark. Peace being declared in 1851, he was discharged and spent the following year in recuperating his shattered health. In 1852 he sailed for the United States and almost immediately went west and settled in Davenport, where he started a vinegar factory, which being destroyed by fire in 1854, he lost everything which he possessed, except the pluck and enterprise which has been the characteristic of his life. He now began working in the saw mill of John M. Cannon in the western part of Davenport, where he continued for about one year, when in company with H. R. Clausson he went to Lyons, Iowa, and erected a flouring mill.

Returning to Davenport in 1857, he took the management of the saw mill and lumber business of Cannon & French, who failing in 1858, he was appointed to the duty of disposing of the stock on hand. In 1861 he engaged with G. K. Bard, who had recently started a saw mill and lumber yard (the mill being the same erected in 1850 by Strong Burnell), where he remained as salesman until 1863, when the plant was sold to Dessaint & Schricker. From this time until 1868 Mr. Mueller carried on a grain business at Davenport, and in March of that year purchased the Dessaint interest in the saw mill and lumber business, and the firm of Schricker & Mueller was established and continued until the death of Mr. Schricker in July, 1883, since which time Mr. Mueller has owned and operated the mill and business. In December, 1885, the mill was destroyed by fire with but a small loss in lumber, and in August, 1886, a new mill was set in operation containing three band saws, with a daily capacity for cutting 140,000 feet of lumber, or 22,000,000 feet of lumber, 5,000,000 lath and 4,000,000 shingles per season. On the first of January, 1895, Mr. Mueller associated his three sons, Frank W., Edward C. and William L. with himself in the business, which has since been conducted under the designation of Chris Mueller & Sons, each of the sons having previously been connected with the business in various capacities, are thorough lumbermen, and are recognized as excellent business men. Another son, Alfred C. Mueller, is a prominent attorney of Davenport.

Mr. Mueller was on June 14, 1854, married to Miss Elfrida, daughter of the Hon. H. R. Claussen, a well-known attorney of Davenport, the issue of the happy union being eight children, of whom four sons and one daughter are living, the daughter Hilda being the wife of Doctor Henry Mathey of Davenport. As before stated, Mr. Claussen was one of the five rebels of the Schleswig-Holstein rebellion of 1848, who were compelled to leave their native land because of their love of country and desire to forward its best interests, even through rebellion against the constituted authorities, and it is not strange that both Mr. Mueller and Mr. Clausson on reaching this country about the time when the slavery question was being most warmly agitated, should affiliate with the Republican party upon its first organization, recognizing in its doctrines those views of personal liberty which in their native land they had made so great sacrifice to secure. Unlike his compatriot, Carl Schurz, Mr. Mueller has never taken an active part in the politics of the land, while ever ready to aid by every means in his power in the advancement of progressive ideas. In the course of his business Mr. Mueller has purchased a large amount of stumpage on the Chippewa, and the firm is one of the fortunate possessors of an amount estimated at a five-year supply for their mills at the present volume of manufacture.

ROCK ISLAND.

Rock Island has also been an important lumber-producing locality from an early day. The first mill at this place was built by Bailey & Boyle near where the depot of the Rock Island railroad stands to-day; they afterward sold to Joseph Conet and ——— Carter, who moved the mill to where Weyerhaeuser & Denkmann's "lower" mill now stands, and then sold it to Mead, Smith & Marsh, probably about 1854-5. The "upper" mill, which stood near the present site of the Rock Island "round-house," was built by David Barnes about the same period. Mr. Barnes failed in 1858-9, soon after having rebuilt the mill, becoming embarrassed, with many others, in the panic of 1857. The property was now leased to Chamberlin, Reynolds & Hatch, who operated it for two or three years, when it was purchased from Judge Grant of Davenport, who held it under a defective title, by J. S. Keator, who risked $10,000 upon it, and, selling a one-half interest to his old partner, Porter Skinner, the firm of Keator & Skinner operated it for a couple of years, when Mr. Keator sold his interest to Skinner, who, in connection with his son Charles, continued the business under the name of P. Skinner & Son for several years, and sold his interest to his son, who formed an alliance with Anawalt, Gray & Cropper, who, after operating for some years, were succeeded by Weyerhaeuser & Denkmann, who purchased the property and formed the corporation long known as Anawalt, Denkmann & Co. About this time Mr. Keator, with J. H. Willson, built what is now known as the "B" mill of the Rock Island Lumber Company, and ran it until the withdrawal of Mr. Willson, in 1875, when Mr. Keator and his son, S. J. Keator, operated it for several years, and then consolidated with the Anawalt-Denkmann Co., and formed the Rock Island Lumber Co., which continues to the present time. When the Barnes mill reached the hands of the Anawalt & Denkmann Co., it underwent extensive repairs, and, with frequent subsequent overhauling, the small mill, of perhaps 6,000 feet daily capacity, has been modernized to a capacity of 200,000 feet per day; the original mill ran one mulay saw, which was early exchanged for a circular, and later had two circulars and a gang, while its present equipment consists of two bands and a gang. The reports for 1874 state that this mill was built in 1854, and in 1874 had an estimated capacity for cutting 18,000,000 yearly, its production for that year being reported at 16,000,000 feet of lumber and 5,000,000 shingles, its equipment being stated to consist of three circulars, one gang and two double edgers, employing ninety men.

The Rock Island Lumber Company, in addition to its saw mill, erected an extensive manufactory for the manufacture of sash, doors and blinds, together with house finishings. After a few years Mr. Keator's interest was purchased by Weyerhaeuser & Denkmann, and the business of the Rock Island Lumber Co. has for many years past been under the able management of Mr. John P., son of Frederick Weyerhaeuser. The saw mill now operates one band, one circular and a gang, its reported cut in 1880 being 24,000,000 feet of lumber and 4,000,000 shingles, increased by 1892 of 46,000,000 feet of lumber and 12,000,000 shingles.

Weyerhaeuser & Denkmann, at their lower mill, increased the capacity from an original 6,000 feet per day in 1860, to 36,000,000 feet per year, together with 4,000,000 shingles, a standard which, with improved machinery, was increased from year to year, until the reports of 1895 give to the Rock Island and Davenport mills, combined, a cut of 62,000,000 feet of lumber and 10,000,000 shingles, the cut of the Rock Island Lumber Co. for that year being 55,300,000 feet of lumber and 10,420,000 shingles. The Davenport mill was purchased from Renwick, Shaw & Crossett in 1884, being the same mentioned in connection with those gentlemen in our remarks regarding Davenport, the cut of which in 1880 was 13,000,000 feet; increased by its new proprietors, by the addition of improved devices, so that by 1892 its cut was reported at 22,000,000 feet of lumber and 5,250,000 shingles.

All of the mills on the Mississippi river made the manufacture of lath a prominent feature, while yet in the annual reports no systematic attempt has ever been made to collate the volume of this important product, which, manufactured from slabs, the offal of the mills, was looked upon as a bye product, helping the sale of lumber rather than as an independent manufacture, and the profits from their sale have not infrequently been so slight that in many mills their manufacture was not undertaken.

The annual production of the mills of the three cities of Davenport, Rock Island and Moline has been about 225,000,000 feet of lumber and 40,000,000 shingles for a long period of years. There was a small mill built upon the government island in the early days, but its history cuts no figure beyond the mere mention of the fact, as is also the case with a government saw mill in connection with the military reserve and arsenal maintained upon the island, exclusively for government purposes.

Frederick Weyerhaeuser.—Among the prominent lumberman of the United States, there is probably none more widely known than Frederick Weyerhaeuser of St. Paul, Minnesota. As the senior member of the firm of Weyerhaeuser & Denkmann, of Rock Island, Illinois, he was well known throughout the west prior to his election in 1872, as the president of the Mississippi River Logging Company and its associate corporation, the Beef Slough Manufacturing Booming, Log Driving and Transportation Company.

These companies, which practically consolidated the timber land and logging interests of all the largest saw mills of the Mississippi valley below Lake Pepin, and which handled and controlled almost the entire log output of the Chippewa river, furnished an ideal field for the exercise of his untiring energy, his keen business insight, his quick grasp of every important factor in submitted propositions, his instant recognition of profitable opportunities, his unerring judgment and his dispatch of business through a marvelous executive ability.

The companies referred to, in their various ramifications and offshoots, and the numerous allied undertakings, either in corporate capacity or as individual ventures of their members, have all proceeded under the immediate direction of Mr. Weyerhaeuser and have for the most part originated with him. This fact may possibly account for the habit into which the daily press has fallen, of attributing every important movement in lumber circles to a "Weyerhaeuser syndicate." Though, of course, frequently incorrect in this, the fact indicates as well as can be done the position occupied by Mr. Weyerhaeuser in the lumber world. The timber holdings of the various interests of which Mr. Weyerhaeuser is the recognized controlling spirit, probably exceed rather than fall short of 15,000,000,000 feet, a quantity which approximates fully one half of the remaining resources of the white pine forests of the northwest.

In addition to his timber land, logging and Lower Mississippi interests, he is actively interested in eighteen extensive manufacturing concerns, among which may be mentioned, the Chippewa Lumber and Boom Co., Chippewa Falls; the Shell Lake Lumber Co., Shell Lake, Wisconsin; the Pine Tree Lumber Co., Little Falls; and Northern Lumber Co., Cloquet, Minnesota, and as well his interests at Rock Island.

Recently, in referring to the basis of his success, Mr. Weyerhaeuser stated that he attributed it to the fact that he had "always thought more of his credit than of his clothes." This states the truth partially. Unquestionably habits of industry and frugality at the outset and the constant maintenance of an unsullied credit must underlie all permanent success in legitimate commercial enterprises, but for the attainment of phenomenal success there must be fortuitous circumstances and suitable opportunity coupled with the ability to foresee the largest possibilities, and the ambition, energy, courage and determination which are essential to their realization. All of these elements find abundant illustration in Mr. Weyerhaeuser's career.

One feature of his operations which should be mentioned, is the fact that his associates have always mutually and fully shared with him in the results attained. His efforts have always been for the success of the common undertakings and all the parties in interest have had a just proportion of the outcome realized.

Mr. Weyerhaeuser is in every way a typical business man, unpretentious, active, easily approached, of few words and quick to decide every question that may arise. He has a store of ready wit and a happy faculty of illustration which would do credit to the lamented Lincoln.

His facility at adapting some homely illustration to the question at issue frequently enables him to quickly and pleasantly terminate a troublesome interview which might otherwise have admitted of an hour's argument.

Of Mr. Weyerhaeuser in his private and home life it is a pleasure to speak. His business career has not been more marked by uprightness, integrity and honor than has his private character by honesty, sincerity and the characteristics of the most worthy manhood. And his home has been such as of right belongs to such a man. With an utter absence of ostentation, it has ever been the center of the highest refinement and of the most generous hospitality. Mrs. Weyerhaeuser, as the devoted wife and mother, has been no less successful in the management of the household than has been her worthy husband in the commercial world.

Their family, consisting of four sons and three daughters, have each received a liberal education and are without exception most worthy representatives of this model American home. The sons have each assumed positions of responsibility in lumber organizations and their marked ability effectually disproves the popular notion which limits rich men's sons to mediocrity and destines them to indifferent success.

Chronologically, Mr. Weyerhaeuser's career may be set out as follows: He was born in Niedersaulheim, near Mainz, in Southern Germany, November 21, 1834, received a common school education until he was thirteen years of age, worked his father's farm until he was seventeen, emigrated to America in 1852, landed in New York on the first day of July, 1852, settled in North East, Erie county, Pennsylvania, and came west in 1856.

He commenced the lumber and grain business in Coal valley, Rock Island county, Illinois, and in 1860 he and Mr. F. C. A. Denkmann bought what was known as the Rock Island Saw Mill and organized the partnership which has ever since been known as Weyerhaeuser & Denkmann.

In the latter part of the 60s they bought what was then, and is still, known as the Upper Mill in Rock Island, and in the 70s they consolidated that mill with that of Mr. J. S. Keator and organized the Rock Island Lumber & Manufacturing Company. Shortly afterwards they bought out the interest of Mr. Keator and have since continued the operations of said company.

Mr. Weyerhaeuser was married to Miss Elizabeth Bladel, on the 11th day of October, 1857. In April, 1891, he became a resident of St. Paul, where he and his family now reside.

Frederick C. A. Denkmann of the well-known firm of Weyerhaeuser & Denkmann of Rock Island, was born in German Prussia in 1882, and was there educated and resided until he reached the age of fourteen, when he was apprenticed to learn the machinist trade, which he followed for several years, traveling in different countries in its prosecution. The troubles of 1848 in Germany led him to seek the republic across the seas, and the following year found him at Erie, Penn., where he worked at his trade until 1851, when he removed to Rock Island and continued in its pursuit until in 1858, when he entered upon the prosecution of a grocery trade, which occupied his attention for a couple of years. In 1860 he formed a partnership with Frederick Weyerhaeuser, and the firm purchased a mill located at the lower end of the city, which had been built in 1850 by Bailey, Boyle & Brown, and was then owned by Mead, Smith & Marsh. This mill was a mulay with a small circular to a siding machine, in which cants from the upright saw were sawed into clapboards and one-inch boards, as a relief to the upright saw, and the capacity of the mill was about 6,000 feet per day of twelve hours. No firm in the business was quicker to perceive the advantages flowing from the adoption of improvements in saw mill machinery, and with the practical business bent of Mr. Weyerhaeuser, combined with the mechanical skill of Mr. Denkmann, the mill was each year improved by the addition of new devices, the mulay gave place to a circular, a gang was added, and with the introduction of the band saw about 1884, this too became an adjunct which soon proved its value, so that the circular was discarded, and the mill of the later period contains two bands and a gang, with a daily capacity for the manufacture of 200,000 feet of lumber and the annual cut is no less than 35,000,000 feet of lumber and 10,000,000 shingles. For the first few years the firm purchased its log stock from rafts which floated down the river from the Black and Chippewa rivers, but about 1864 they began investing in timber lands on the Chippewa and other streams, and with a rapid extension of manufacture increased their holdings, and as a firm have showed in the advantages flowing from a policy which has placed Mr. Weyerhaeuser as the acknowledged lumber king of the world in the vast accumulations of timber, which, by associating with him many of the leading manufacturers of the Mississippi river, that gentleman has been enabled to accumulate in the interest of a syndicate which has practically controlled the logging industry of Wisconsin and Minnesota, their present holdings being estimated at no less than 15,000,000,000 feet of standing timber, in addition to probably an equal amount which has been handled under their control in the past. About 1872, Weyerhaeuser & Denkmann purchased a controlling interest in the mill of J. S. Keator on the lower end of the Government island, and organized the Rock Island Lumber Company, with a manufacture of but small extent in its early inception, but which by 1880 had reached a volume of 23,000,000 feet of lumber and 4,000,000 shingles, and ten years later reported a cut of 45,000,000 feet of lumber and 12,000,000 shingles. Connected with this operation is a factory for the manufacture of sash, doors and blinds.

Mr. Denkmann has two sons, Frederick C. and Edward P., both of whom have been educated to the lumber business, and are experienced and thoroughgoing business men, both being connected with the business of their honored sire.

MOLINE, ILL.

So early as 1837 J. W. Spencer, Calvin Ainsworth (father of Hon. H. A. and Charles R. Ainsworth, now residents of Moline, H. A. Ainsworth having represented this district in the senate of the State), together with S. H. White and David B. Sears, built the first dam across the south branch of the Mississippi river, between the island of Rock Island and the Illinois shore. Calvin Ainsworth assisted Charles Atkinson to lay out the town of Moline, and in 1841 built the first saw mill, in which he placed two sash saws, with a capacity of about 1,500 feet of lumber per hour. At this time lath and shingles were not thought of in connection with the sawing of lumber, except as shaky logs were sawed into thin boards, which, being checked with an axe to a condition which enabled them to be spread to double their original width as they were nailed upon the studding, this kind of lathing being the only kind used in the early history of building, both east and west. Upon the second floor of the mill two run of buhr millstones were operated for the custom grinding of grain for the settlers of this new country, the next nearest facilities being no less than one hundred miles distant. About 1845 Charles Atkinson, A. M. Hubbard and Dr. Oliver Chamberlin built another saw mill with one sash saw, and a year or two later S. H. White built a mill at the island end of the dam, which contained one sash saw, which was afterward replaced by a mulay and small rotary for sawing cants of six inch into flooring, siding and fencing, of no greater than a six-inch width. Not long after this Mr. Sears built another dam from the north side of the island (the river at this point running nearly due west for a distance of thirty miles to another small island known as Benham's island). Mr. Sears built a saw mill with one mulay and a small single rotary, and added shingle and lath machinery, sawed shingles and narrow lath having by this time become popular; in the second story of the mill provision was made for a bedstead factory and wood-turning works, and into this mill was introduced the first machine in the country for making tongued and grooved flooring by Charles Atkinson, who owned the machine and the right to use two, the second being sold to the Biddison Bros. of Rock Island; this was in 1848. About this time, Mr. Sears becoming financially embarrassed, his property passed into the hands of Pitts, Gilbert & Pitts, friends and relations of Mr. Sears, from New York state, who, taking possession, the latter-named mill was rented to Stephens, Huntoon & Wood, who, in connection with the mill, ran the flooring machine, paying a royalty of seventy-five cents per thousand feet manufactured. These mills were all run by water-power upon stock consisting of oak, ash, black walnut, hickory and basswood cut from the bluffs between the Mississippi and Rock rivers, the supply extending up these streams for many miles. At the time when Stephens, Huntoon & Wood commenced running the mill they arranged with some pine land owners upon the Black river of Wisconsin to cut raft and run pine saw logs to their mill, and they were soon joined by the proprietors and renters of the other mills, who in a small way followed their example, but previous to 1853, the yearly cut of pine never exceeded a million feet in any year, in all probability. In 1853-4 Russell Stevens, Samuel Gault and ——— Hartzell (later Ruggles & Hartzell) built a steam saw mill upon the main shore of the river at Moline, containing mulay and circular saws, and an apparatus for steaming bolts and manufacturing cut shingles of which they turned out about 5,000 per day, the mill cut being about 25,000 feet daily. This mill was purchased in 1856 by J. S. Keator and Porter Skinner, who operated it in connection with a sash, door and blind manufactory until 1861, when the factory burning, Mr. Keator purchased Mr. Skinner's interest and operated under his own name for some years, later associating his son Benjamin C. Keator in the firm of J. S. Keator & Son, who continued the business until the destruction of the mill by fire in 1870, being at once replaced with a mill containing two circulars and one gang, with capacity for sawing 20,000,000 feet of lumber, 5,000,000 shingles and 3,000,000 lath per season. In 1876 a second gang was added, increasing the capacity to 30,000,000 feet per year. With the building of the new mill it was operated until 1880, when the J. S. Keator Lumber Co. was organized and incorporated with a capital of $200,000, all of which was paid up and held in the Keator family. The business was successfully conducted until August 18, 1883, when the mill was burned together with about 11,500,000 feet of lumber, entailing a loss of $300,000 above insurance. The company at once leased the mill known as the Paige, Dixon & Co. property at Davenport, which it operated for about two years, during which time they rebuilt the Moline mill adding a planing mill which with the saw mill was of the latest and most approved type which modern invention had developed, but after running it for a couple of years, in consequence of the high prices of logs and the falling values of lumber the results showing a loss, the mill was shut down and has not since been operated.

In 1858 Orlando Child, who is reputed to have patented the application of the top saw to the hitherto single rotary, in company with Mr. Stowell (for many years well known in connection with the Filer & Stowell Manufacturing Company of Milwaukee), built a saw mill on the river bank a short distance above the Keator mill, installing the first double rotary in this section of the country, but soon after it was in readiness to run, it mysteriously took fire and was destroyed, never being rebuilt. The mill of Atkinson, Hubbard & Chamberlain was operated for but a short time, and not really as a partnership, the proprietors adapting the novel system of each running the mill and supplying the funds week and week about, dividing the proceeds of sales in accordance with such an arrangement, which continued but a short time when the mill passed into the hands of Dr. Chamberlain and John H. Dean, who operated it under the name of Chamberlain & Dean, until its destruction by fire in 1858 or 1859. Retrospectively, the first mill mentioned in this brief history was washed away in a freshet which destroyed the dam; the S. H. White mill was sold to E. P. Healy, who ran it until the dam was destroyed, when it

E D Reed

was sold to Holmes Hakes, who removed it to Camden Mills (now Milan) on Rock river, intending to run logs up the river from its mouth in periods of high water in the Mississippi, when the back water would be sufficiently quiet, but the scheme proved impracticable, and the enterprise a failure. The first mill at Moline was, after the failure of Mr. Sears, rented to Stein & Overmeyer, who operated it until possession was taken by Pitts, Gilbert & Pitts, who in turn operated it until it, too, was washed away by a freshet. The last mill upon the water-power passed into the hands of the government, when it took possession of the Island after condemning about twenty-nine acres which Mr. Sears had entered upon the head of the island where the mill stood, he having been permitted to locate there through a special act of congress, after he had proved to the satisfaction of the committee on Public Lands that on account of the erection of two dams, the flow of the south channel between the Island and the Illinois shore, had been retarded to such an extent as to increase the flow and depth upon the opposite chain of rapids, which he substantiated by the testimony of steamboat men who had navigated it both before and after the dams were built. Mr. Sears paid the government $1.25 per acre for the land, but probably expended fully $100 per acre in time and money before obtaining the permit, but when in later years the government occupied the reservation and utilized it as a government arsenal, it was necessary that it should possess the entire property, and in the legal condemnation of the land, and appraisal of its value by a jury of its own selection, Mr. Sears was awarded and received something like $145,000 for his interests.

The later mill of J. S. Keator & Son, mentioned above and which was built in 1874, contained two circulars, one double gang, or gang so arranged that two logs passing each other in opposite directions were sawed at the same time, and a gang edger: the mill was rated at a capacity of 20,000,000 feet per annum, with 5,000,000 shingles and 3,000,000 lath and reported a cut for 1874 of 12,000,000 feet of lumber and 4,500,000 shingles, employing 125 operators; in 1876 a second gang was added, which increased the capacity to 30,000,000 feet.

In 1868 Dimock, Gould & Co., who for several years previous had operated a woodenware and furniture factory, added a saw mill to their manufacturing plant, which with a single circular and one mulay saw had capacity for the manufacture of from 16,000 to 18,000 feet per day. In June, 1875, this mill was destroyed by fire resulting from a stroke of lightning, but was at once rebuilt on a much larger scale, with double and single circulars and a gang, and the reports for 1880 show a cut for that year of 13,500,000 feet of lumber. This company has kept well up with the march of improvement in saw mill adaptations, and by 1890 its cut was reported at 40,000,000 feet of lumber and 5,000,000 shingles. (See sketch of J. M. Gould.) This company has from an early day manufactured woodenware of various kinds, the wood for tubs and pails being to a large extent prepared in the saw mill. With the march of improvement the manufacture of indurated ware from wood pulp was introduced and has not only proved highly successful in the various forms into which it is pressed, but has to a large extent superseded its predecessor made wholly of wood.

A summing up of the lumber production of the tri cities, may be made in the statement that during the past forty years they have contributed fully 6,000,000,000 feet to the lumber supply of the northwest.

John Maxfield Gould of Moline, Illinois, was one of the pioneers of the lumber industry of the Mississippi river. Mr. Gould was born at Piermont, New Hampshire, February 24, 1822, his parents being of old English extraction. His father was a tanner, and shoe and harness maker, and his son during his youthful days picked up considerable knowledge of these trades when not in school. His education was such as was afforded by the common school, and later of an academy, together with the benefits derived from a utilization of these privileges as a school teacher for three winters after leaving school. At the age of twenty-two years, he, in 1844, decided to visit the great west, and if he found it to be as fancy pictured from descriptions given by travelers and in books, to grow up with it and aid in the development of its prairies and their hidden resources. Four weeks of idleness at Chicago, where he could find no inducements of the character which he sought, were all sufficient to turn his feet toward more promising fields in a further west. Means of travel were scant, the old thorobrace stage coach and the farm wagon being the only alternative to walking, and the slender purse of the young man who started from the east with but $65 in his pocket, soon showed him that his earlier acquired habits of economy now stood him in good stead. Reaching Grand Detour in Ogle county, Illinois, he found employ as clerk in a mercantile establishment.

At the end of three years, having saved his salary with care, he purchased an interest in the business, and established the firm of J. M. Gould & Co. A year later he sold this interest to his partners, Dana & Throop of Grand Detour, and Mr. Deere knowing that the young man had the stuff in him of which good business men are made, induced him by the offer of a partnership with himself and Robert Tate, to go to Moline and take charge of their financial interests, and this resulted in the formation of the firm of Deere, Tate & Gould, plow manufacturers, and Mr. Gould's connection with this firm continued for the next four years, terminating in 1852. In taking charge of the financial matters of this firm he opened and kept a set of double entry books, the first to be kept in Rock Island, and none of that nature were kept in Scott county, Iowa, at that time, as he was told. Not long after his retirement from the plow business, Mr. Gould formed a partnership with D. C. Dimock in the manufacture of woodenware and furniture, their factory being the first of the kind which was established west of Detroit, and their work being of a most reliable character, supplied a much needed element to the rapidly increasing population of the new country which was now rapidly settling up. In 1856 their factory was burned, and in rebuilding the manufacture of furniture was dropped, and that of woodenware greatly extended, with increasing facilities added from year to year, to such extent that in 1868 articles of incorporation were obtained under the name of Dimock, Gould & Co., with an authorized capital of $150,000, and the new company added a saw mill to its plant. This mill consisted of one single circular and one mulay saw, with capacity for sawing from 16,000 to 18,000 feet of lumber per day. In June, 1875, the mill was struck by lightning and entirely destroyed, but was at once rebuilt on a much larger scale, with double and single rotaries and a gang, and the reports for the year 1880 showed a production of 13,500,000 feet for that year, while with the introduction of new appliances which have from time to time been introduced into the saw mill world and which the company was not slow to adopt, the cut of 1892 had reached 40,000,000 feet of lumber and 5,000,000 shingles. For several years previous to this time, western saw mill men, having discovered that a large percentage of the coarser product of the log which was of little or no value as lumber, contained a large proportion of first-class shingles, had so modified their methods of shingle manufacture in separate mills, as to combine the shingle manufacture with that of lumber on the same mill floor, sawing the rougher stock into six-inch cants, which being sawed into shingle lengths by a bolting circular, and then turned over to the shingle machine, imparted a value to hitherto worthless stock in the production of one of the most salable articles of the lumber trade.

Dimock, Gould & Co., by 1875, ranked among the largest lumber manufacturers of the Mississippi river, and with a still increasing manufacture of woodenware, the stock for which was largely prepared in their saw mill, it became necessary in 1884 to increase the capital stock of the company to $300,000, while the saw mill has been remodeled by the addition of new machinery, until since 1889 it has operated one circular, one band and a gang, with steam feed, double edgers, trimmers, slash saws for cutting up slabs, live rolls to save heavy lifting and hand labor, and in short all of the more modern improvements such as have contributed to the evolution of the old flutter wheel sash saw of one or two thousand feet per day, to the modern saw mill of from 100,000 to 200,000 feet per day capacity. From 1882 to the annual election in 1897, Mr. Gould occupied the position of president and managing director of the affairs of the company which had grown out of the earlier venture of Dimock & Gould, but in the latter year, at his special request, Mr. Charles R. Ainsworth, who for many years had been a vice-president of the company, was elected to the presidency, thus relieving Mr. Gould from the heavy responsibility which for so many years had rested upon his shoulders, leaving him without further responsibility than such as pertained to the position of a director. Mr. Ainsworth had for many years occupied a very important position in connection with the company, having been actively identified with its interests since 1870. The business of the original house was so far successful from the first, that so early as 1857, Messrs. Gould and Dimock in company with C. P. Ryder engaged in the banking business under the firm name of Gould, Dimock & Co., it being at that early day found that such an addition had become an almost indispensable adjunct to the large and rapidly growing business which had grown up, and no less for the convenience of the large manufacturing industries which were now giving Moline prominence as a great center of plow manufacture, paper mills and other industries, and this was in 1863 merged into the First National Bank of Moline, of which Mr. Gould was chosen cashier, and four years later elected president, an office which he continues to hold. Mr. Gould was, in 1876, a stockholder, director and treasurer of the St. Louis, Rock Island & Chicago Railroad Company, and continued to hold these positions until the road passed into the hands of the Chicago, Burlington & Quincy Company. In early life a Democrat, he was, in 1853, elected county judge of the Rock Island county court, an office which he held for four years, and a position, his selection for which (not being a lawyer) is the strongest evidence of the confidence reposed in him by his fellow citizens, in recognition of those judicial qualities and that common sense which marks the more able administrators of justice. A few years later, in April, 1861, becoming convinced that the principles of the young Republican party just taking hold of the public conscience, were more conducive to the best interests of the nation, he gave his adherence thereto, although declining to hold political office. In 1872 an organization known as the Lumberman's Board of Trade, was formed by the lumbermen of Davenport, Rock Island, Moline and Muscatine, of which Mr. Gould was elected president, which office he has continued to hold for nearly twenty-seven years; he has also been president of the Moline Board of Trade, was at one time president of the Citizens' League of Moline, and planned and obtained a charter for the City Hospital Association, of which he was elected a director of its first board of managers; from 1864 Mr. Gould has been treasurer of the township and school district, and has held many other positions of influence and honor. Beginning life as a poor boy, but with vision directed to the higher rounds of life's ladder, he awaits the call to activities of a still higher order, with consciousness that his life's endeavors have met with the approval of his fellow man.

Since the inception of their business at Moline in 1852, Mr. Gould and his associates have contributed a gross production of fully 549,000,000 feet of lumber, besides a vast quantity of shingles, lath and pickets, to the gross production of lumber by the mills of the northwest, while their production of wooden-ware, tubs, pails, etc., would require to be stated in equally large figures.

While residing at Grand Detour in 1848, Mr. Gould wedded Miss Alice Chase Moulton (a second-cousin of Hon. Salmon P. Chase), who but a short time after died of consumption, leaving no issue. In 1850 he married Miss Hannah Marcy Dimock, a sister of his business associate. Of the children by this union, a son, Frank W., is vice-president and one of the managers of the lumber company; another son, Fred G., being engaged with the company as shipping clerk. A daughter, Mrs. Sullivan M. Hill, resides at Moline, her husband being a director and treasurer of the celebrated Moline Plow Company.

Jerman S. Keator of Moline is among the oldest and best known of the many lumber manufacturers of the Mississippi river district. Mr. Keator was born at Hancock, Delaware county, N. Y., November 1, 1822. He was of Dutch parentage, his ancestors being among the early settlers of the Empire State. He was educated in the common schools until at twelve years of age, when he took a clerkship in a mercantile establishment at Windsor, N. Y., when after a couple of years more at school, he entered the employ of Bassett & Hornbeck at Honesdale, Wayne county, Pa., where at a salary of but $150 per year he remained until of age, during which time after paying his board he managed to save $300, and was offered a half interest in the mercantile and lumber business of his employers, and the firm of Hornbeck & Keator carried on successful operations for twelve years. His father (who died during the infancy of our subject) had for many years previous to his death been a merchant and lumberman of the Delaware river region, and the son's ambition being turned toward the same line, he concluded, as the pine and most of the hemlock of the once prolific neighborhood was gone, to turn his face toward the now developing lumber regions of the west, and concluding that the region of the Mississippi river presented the most promising field, he in 1855 visited Chicago and shortly pushed on to the northwest going as far as St. Cloud, Minnesota. Minneapolis was but just laid out as a city, and the broad prairie country to the west was beginning to attract settlers; the pine forests of Northern Minnesota were attractive, but where was market to be found for lumber? There were no railroads, the lands were not even surveyed, and the young man concluded to look further south. Reaching Davenport, Iowa, the location pleased him and he decided to settle there, when, on looking over the field, he found at Moline that the saw mill of Stevens, Ruggles & Hartzell was for sale. In 1856, in connection with Porter Skinner, he purchased this property and commenced business, which progressed satisfactorily until the summer of 1857, when the failure of the Ohio Life and Trust Company of New York inaugurated the disastrous panic which demoralized the business of the entire country, and led to the failure of a majority of the lumbermen of the Mississippi valley. Lumber, which had been selling for $20 per thousand, dropped to $6 and $8, and there was no money to purchase with, even at those low prices. The firm pluckily labored on for four or five years in the endeavor to save themselves from bankruptcy, in which they succeeded, after a hard-fought battle. Several times did Mr. Skinner advise that the struggle be given up, but Mr. Keator was determined to hang on as long as he had a shirt to his back, and never to pay less than a hundred cents on the dollar. He had some means left in his eastern home that he could call for if it became absolutely necessary, and in 1861 his partner, fearing that he was going to lose his all, decided to sell his interest, and Mr. Keator bought him out. Times soon after began to improve and Mr. Keator operated the mill until in the "70s," when he associated his son, Benjamin C., with him, under the name of J. S. Keator & Son, so continuing until 1880, when the business was incorporated as the J. S. Keator Lumber Co., with capital stock of $200,000. In connection with the manufacture of lumber, the firm of Keator & Skinner had also a sash, door and blind factory and planing mill, which, in June, 1861, was burned, with a loss of $25,000, and no insurance. In 1868 Mr. Keator, in connection with J. H. Willson, built a mill at Rock Island (now known as the "B" mill of the Rock Island Lumber Co.), in which his son, S. J. Keator, was a partner, the firm being known as Keator & Wilson; this, later, became the Rock Island Lumber Co., of which S. J. Keator was the first secretary and treasurer. In the spring of 1870 the mill purchased of Stevens was burned, with a loss of $75,000, and an insurance of but $5,000. This was at once replaced with a modern mill (for that day) of 20,000,000 feet yearly capacity, which was remodeled and improved with succeeding years to a 30,000,000 feet capacity, and successfully operated until August 18, 1883, when it, too, fell a prey to the flames, entailing a loss of $350,000, with but $90,000 insurance, the work of a life-time gone up in smoke. During the panic of 1857 the firm of Morgan, Morse & Co. of Elgin, Ill., which, during 1854-5, had entered about 8,000 acres of pine lands on Black river—choice timber selections—found itself in difficulty, some of its members failing, and Mr. Keator, in 1857-8, had purchased the one-third interest of the unfortunate members, paying $8,000 for the same, and later he had purchased the interest of two others of the party, thus acquiring a two-third interest in the tract, which was later divided in that proportion. He had also with the passing years entered government timber lands at $1.25 per acre, and purchased from private parties, paying as high as $5 per acre, so that when his mill burned, he held several thousand acres, which had been purchased as he had the money to spare, and in so doing had earned the appellation of an "Illinois fool," who had bought lands three to five miles back from the rivers; these lands had cost him from 75 cents to $1 per acre, and, being mostly choice selections, he had faith in their future value, having come from a region where a three-mile haul did not frighten anybody. Still, for some years it looked as though these lands would not be wanted in his life-time, and he commenced buying more accessible lands on the Chippewa, until his holdings reached above 30,000 acres. When his mill burned, he was compelled to sell a good portion of his holdings in order to rebuild (a measure greatly regretted at the time, and much more in later years). For a quarter of a century Mr. Keator was one of, if not the heaviest, logger on the Black river, and his mark was considered among the best in quality. He was one of the original stockholders in the Mississippi Logging Co. when it was formed to open the resources of the Chippewa river for down-river millers. While ranking for a long period as a busy and enterprising lumberman, he has taken great interest in the welfare of the city of his residence.

He helped to organize the First National Bank of Moline, and was its first president, J. M. Gould (elsewhere noted) being its cashier. He also assisted in organizing the first street railroad, and was for three years president of the company; these offices he was, from the stress of his business occupations, compelled to yield to his associates—younger men. He was one of the organizers of the Mississippi Valley Insurance Co., and its president during its continuance; he erected the handsome "Keator house block" and other structures in the city. He was for thirty years active in all the enterprises which have so largely contributed to the growth of the city. He served for eight years as a member of the common council, and for twenty years was a member of the board of school trustees.

He was married in July, 1847, to Miss Mary Baldwin of Durham, N. Y., who bore him four sons, S. J., B. C., F. W. and E. B. Keator. Mrs. Keator died in 1857, and in February, 1860, he married Sarah Yelverton, who bore him one son and one daughter; all his children are now living except the daughter, who died in 1890. Spared to a ripe old age, Mr. Keator is still a hale and hearty man, still residing at Moline, where he is held in the highest respect as one who has proved an enterprising and valuable citizen.

MUSCATINE, IOWA.

Muscatine has occupied an important position in the lumber trade of the Mississippi river. From an interesting series of papers by a pioneer of Muscatine, Mr. J. P. Walton, published in The Muscatine Mail during the winter of 1898, we collate the following facts regarding the lumber history of the city:

In the autumn of 1837 A. O. and D. R. Warfield built a water mill with sash saw on Mad Creek; this washed out in a freshet in 1838, and was rebuilt, running until 1851, when it again washed out, and was not rebuilt. This mill was 16x40 feet in size, and its log stock, which consisted mostly of native hardwoods, with an occasional estray pine picked up from the river, was rolled into the side of the mill from a skidway.

The Warfields sold to the Brooks Brothers, who ran it until it was finally washed out. There was about this time a steam mill at Geneva; the water mill of the Longs on Sweetland Creek, Nye's mill on Pine Creek, and Drury's mill on Copperas Creek, all of about the same character, which supplied a portion of the lumber for the young settlement, the main supply coming from rafts brought down the river from the Black and Chippewa rivers, and purchased by the general merchants of the town, who sold it in exchange for grain, which they could ship to St. Louis and exchange for goods.

About 1844 J. G. Deshler and T. M. Isett opened lumber yards: Deshler, in company with Col. John Vanatta, in 1843 bought the Geneva steam mill and removed it to Muscatine. The year previous (1843) Cornelius Cadle built a steam mill, the first in the city, which was soon after purchased and operated by Chambers, Cadle & Co. In 1837 Ware Long and his sons built a water mill on Sweetland Creek, using first a "flutter" wheel, afterwards exchanged for a turbine; this mill ran until 1846, when there was any water in the creek after a hard rain. In 1851 Samuel McKibbin and T. M. Isett formed the firm of S. M. McKibbin & Co. for operating a retail yard, closing out after the panic of 1857. In 1847 a Mr. Brannum opened a yard, which, in 1849, he sold to S. G. Stein, who, with S. G. Hill, operated a sash, door and blind factory, with planing mill. Hill went to the war in 1861, and the factory was sold to Cadle & Mulford. In 1851 Darlington & Irvine opened a yard on "Papoose Creek," which, in August of that year, was washed out by a freshet, and the business soon after abandoned.

The Union Lumber Co., Hon. Thad. C. Pound, president, William Van Horne, manager, opened up a yard in 1873-4 for the sale of the cut from Pound's mill at Chippewa Falls, bringing the lumber in rafts towed by their own boats. They constructed a dry kiln, 75x150, and built a planing mill. In 1877 the dry kiln burned with 300,000 feet of lumber, and the company soon after went out of business, selling the stock of lumber of about 11,000,000 feet to the Musser Lumber Co., and the planing mill and a cooper shop to U. N. Roberts & Co., who had a sash, door and blind factory at Davenport, with branch at Muscatine. Roberts & Co. built a saw mill, which, after running for some time, they sold to Benjamin Hershey, who improved it until he had $250,000 invested in it, and afterward sold it to Kaiser Brothers, who, later, formed the South Muscatine Lumber Co.

In 1850 Jacob Hershey, a cousin of the late Benjamin Hershey, went to Muscatine, and in 1852 built a saw mill on the site of the present Hershey mill; this mill had one circular saw for canting logs, and a smaller one for sawing up the cants, adding a lath and also a shingle machine; this mill, in 1853, was rented by Benjamin Hershey, who, in 1855, purchased it; in 1856-7 he built a new mill with gang saws, for the purpose of wasting less of the timber in sawdust. The gangs were a novelty on the river, and it was some time before his men got the hang of operating them, and his gang-sawed lumber was so crooked that it was not safe to plane it, while the better grade stock was of value only for rough uses. As with all new inventions which give trouble for a time, this difficulty was, after a time, overcome, and on a visit to the Hershey mill, some years later, the historian discovered saws of 18-gauge doing excellent work. In 1875 an incorporation known as the Hershey Lumber Co. was organized with a capital of $200,000, Mr. Hershey holding three-fourths of the stock and was president and treasurer of the company, S. G. Stein was vice-president and William I. Ewart secretary, their associates being H. W. Moore, G. A. Garretson, Thomas Irvine (now president) and John Berkshire, now vice-president of the Ozark Land and Lumber Co. of Winona, Mo. Mr. Hershey, among his first operations, purchased the Burdick mill, built by the Roberts Co., which was purchased later by the South Muscatine Lumber Co.; he also built a mill at Stillwater, Minn., rafting the lumber to Muscatine. The Hershey mills reached a capacity by 1890 for the production of 70,000,000 feet of lumber and 20,000,000 shingles, with 15,000,000 lath. The mill at Stillwater cut about 20,000,000 feet of lumber yearly.

P. M. Musser

In looking over the list of lumber dealers who have done business at Muscatine, we find the names of Dunsmore & Chambers, Hoch & Musser, S. M. McKibbin & Co., S. G. Stein, and B. Hershey; in 1859 we add Hatch & Fullerton, Hoch & Whitehouse, R. Musser & Co., and C. C. Washburne; in 1866 C. Cadle, J. S. Garlock; in 1869 we add C. Drury, W. H. Dulany, Levi Eckle, O. W. Eckle & Bro. E. Hoch, and Huttig Bros., and in this year there were twelve yards in the city, including two saw mills, one run by Benjamin Hershey and the other by Chambers Bros. Chambers Bros. did a very large business along in the 60s, having two saw mills, a large packing house, grain elevator and a large general store. There were four brothers, William, Vincent, Anderson and John, and for many years they were an important factor in the business of the city. All of them are now deceased. In this year (1869) Fred and William Huttig started two lumber yards, one at Kellogg and one at Muscatine, William Huttig managing that at Muscatine; this firm received sash and doors in the knock-down, and soon after, in company with a traveling man named Falter, bought into the Cadle & Mulford planing mill, which they rebuilt and started in the manufacture of sash, doors, etc. The factory ran but a few weeks, when it burned, and the business was reorganized as the Huttig Bros. Manufacturing Co., laying the foundation for one of the most extensive of Muscatine's business enterprises; the company at organization consisted of William Huttig, president; F. Lumpe, vice-president; Richard Cadle, secretary; Fred Huttig, treasurer, and Joseph Mulford, superintendent. The early manufacture of sash and doors was wholly by hand-work, and Abraham Smalley carried on that business at Muscatine for many years, running a small circular saw by wind-mill power to cut out his stock. In 1851 a man named Worthington took some machinery to Muscatine for sash making, and in 1852 S. G. Hill took in a Norcross planer, and, with S. G. Stein, built a factory for making sash and doors, and in 1861 was succeeded by the firm of Cadle, Mulford & Co.; afterwards incorporated into the Huttig Bros. Manufacturing Co. The Muscatine Sash and Door Co. was started by Rev. R. W. H. Brent, who settled in Muscatine in 1851; he had four sons, whose mechanical bent led to the establishment of the Brent Manufacturing Co., which, from a small manufacture of packing boxes, planing mill, etc., grew by 1885 to the organization of the Muscatine Manufacturing Co. with capital of $90,000, and by reorganization in 1889 became known by its present title, and now is known as one of the most prominent industries of the city. It is now incorporated as the Muscatine Sash and Door Co. with a capital of $200,000, W. L. Roach, president; C. R. Fox, vice-president; C. R. Musser, secretary, and S. B. Cook, treasurer. They operate a large branch at Kansas City, and their trade extends from the far east into the Rocky mountain regions.

The Musser Lumber Company of Muscatine, Iowa, was incorporated in February, 1881, with a capital stock of $200,000. Peter Musser was elected president, Richard Musser vice-president, P. M. Musser secretary and treasurer, and C. R. Fox yard and planing mill superintendent. This company is an outgrowth of the pioneer lumber firm of R. Musser & Co., which was established by Peter and Richard Musser and Edward Hoch in 1855. These gentlemen began by buying rafts of lumber in the river, which they yarded and sold by retail and wholesale. They also established a lumber yard at Iowa City in 1856, where Peter Musser resided, it being managed by that gentleman until he went to California, in April, 1864. Mr. Hoch continued in the firm but three years, or until 1858, when he retired, and the firm became R. Musser & Co. In 1864 P. M. Musser, the present secretary and treasurer, bought into the business, without any change of firm name; he assumed charge of the Iowa City yard, which he conducted until 1873, when he and John Porter purchased the interest of R. Musser & Co. in the branch yard at Iowa City, which they carried on under the firm name of Musser & Porter, Mr. Musser still retaining his interest in the business in Muscatine. In 1870, having returned from California, Peter Musser joined his brother, Richard, together with C. R. Fox, a former employe, and P. M. Musser, in the organization of the firm of Musser & Co. for the purpose of building and operating a saw mill and carrying on the lumber business at Muscatine. In the spring of 1871 they completed their mill at a point on the Mississippi river, since known as Musserville and now included in the corporate limits of the city of Muscatine, and began the manufacture of lumber. The mill cut about 11,000,000 feet of lumber a year, and was a good mill in its day. In 1873 Richard Musser retired from the business, selling his interest to P. M. Musser, and the firm became P. M. Musser & Co. Three years later Richard Musser renewed his connection with the company, and the firm name of Musser & Co. was again adopted.

In 1877 the company enlarged their mill, putting in improved machinery and increasing its capacity materially. Four years later, the business having attained important proportions, the proprietors decided to organize under an act of incorporation, which was done in February, 1881, under the name of the Musser Lumber Company, the incorporators being the original proprietors, R. Musser, P. Musser, P. M. Musser and C. R. Fox of Muscatine, and John Musser of Adamstown, Pa., and the officers elected being the same as given above. During the same year the company rebuilt and enlarged the mill, which they fitted with the most modern and improved machinery, making it one of the most complete and capacious saw mills on the Mississippi river, with capacity for manufacturing 50,000,000 feet of lumber, 12,000,000 of lath and 12,000,000 of shingles for the working season, and its annual manufacture is placed at those figures. The power is furnished by two engines, the combined force of which equals 500 horse-power. In 1882 the company erected a planing mill, detached from the saw mill, which affords ample facilities for dressing lumber and the manufacture of flooring, siding and boards to the extent of their trade. The business of this company is strictly wholesale, and their trade lies principally in the states of Iowa, Nebraska, Kansas, Missouri, Colorado and Dakota. The number of hands employed by this company at their mills and yards is about 300, not including the employment which is given indirectly to a large force which is engaged in getting out and rafting logs to supply their mill.

The Musser Lumber Company have owned large tracts of pine lands along the Chippewa in Wisconsin and in the Minnesota lumber region; their logs are cut by contract and are rafted by the Chippewa Logging Company and the Mississippi River Logging Company, two immense lumber corporations, of which the Musser Lumber Co. was one of the incorporators, and is yet a large stockholder. For about twelve years this company owned and operated its own rafting steamers, it having operated the "Silver Wave" and "Le Clare Belle" during all that time, and the new steamer, "Musser," for two years. All were sold during the season of 1888 to Capt. S. R. Van Sant. The company's plant covers an area of thirty-five acres, and the yards are stocked, according to the season of the year, to the amount of from 8,000,000 to 25,000,000 feet of lumber and a proportionate amount of lath and shingles. To convey an idea of the growth of the business from the date of its origin with the firm of Hoch & Musser, it may be stated that the amount of business done the first year was about $100,000, while the present annual business of the company exceeds $750,000. This corporation has its own system of water-works, which was established in 1872, and in which a Duplex pump, as well as the old Cameron pump, is used. This company also have one of Barry's Niagara rotary hydrants, which can throw a three-inch stream a distance of about 400 feet and to a height of 200 feet, and thus the supply of water and force is equal to any emergency that is likely to arise. The gentlemen composing this corporation are enterprising, energetic, business men, who have been identified with Muscatine county for over a third of a century, and have built up a business that has been a potent factor in the prosperous growth of the community. In all these years, through good times and bad, they have held the even tenor of their way, and have maintained an enviable reputation for uprightness and integrity that is beyond reproach.

Death has broken the ranks of this company; in March, 1896, John Musser died at his home in Adamstown, Pa., at the ripe age of eighty-one years; he had not been an active participant in the business of the company, but was one of the original partners and stockholders. In October, 1896, death called away Richard Musser, in the seventy-seventh year of his age; he took a very active part in the business, and was almost as regular in his duties at the mill as any employe of the company.

In the earlier days of the trade at Muscatine lumber sold at from $7 to $9 per thousand, and the stock was calculated to run one-third clear, one-third to second clear and one-third to common. Culls, unless of superior grade, in which there was good cutting or sufficient good for the coarsest work, were relegated to the slab-pile or mill furnace, and were sold for any price they would fetch; in retailing, clear sold at from $20 to $25, and common from $10 to $15; but these prices were not reached until about 1864, under the influence of war values.

The Mussers were also of the original incorporators of the Mississippi River Logging Co. and Chippewa Lumber and Boom Co.; they are also largely interested in the Musser-Sauntry Land, Logging and Manufacturing Co. of Stillwater, Minn., among the largest pine land owners and logging companies in the world.

The aggregate cut of the mills at Muscatine was reported in 1875 at 38,000,000 feet, with 21,000,000 shingles; that of 1880 at 55,000,000 feet, with 18,000,000 shingles, while that of 1897 reached 110,000,000 feet of lumber, 30,000,000 shingles and 25,000,000 lath, and from these figures may be gleaned the importance of a point whose aggregate production of lumber since 1855 may be set down as in excess of 1,500,000,000 feet, the supplies for which have been drawn from the St. Croix, Chippewa and Black rivers.

P. M. Musser.—The subject of this sketch was born in Whitehall, Lancaster county, Pa., on April 3, 1841. His parents were John Musser and Casiah Miller, who had three children, Kate, Peter M. and Lizzie. Both parents were born in Adamstown, Lancaster county, Pa., and were of the original Pennsylvania Dutch stock, and the whole community in which they lived used that language in all of their ordinary transactions with one another. The father was a merchant all of his life, and at first was located at Whitehall, but in 1848 he moved to Adamstown and opened up a general store there, which he kept until he retired from business.

Mr. P. M. Musser had only a common school education, and when out of school, and during vacations, was in the store helping his father. It was a general country store, handling all kinds of merchandise, and buying or selling all kinds of produce, and was a splendid training school for business.

The father was a very methodical man, and he insisted all of the business should be kept in that way, and it was while in this store that P. M. Musser learned many things which have been a great help to him in all his business life. He worked in the store with his father until he was twenty-two years old, and then left his home and came to Muscatine, Iowa, in March, 1863, where he worked for his uncles, Richard and Peter Musser, in their lumber business. After spending about one year there, in 1864 he moved to Iowa City. His uncle, Peter Musser, who had charge of the branch yard at Iowa City, decided to sell out and go to California on account of his health, which was very poor.

P. M. Musser bought his uncle's interest in the business and took charge of the yard as long as he remained in Iowa City. The sales of this yard ran for many years from $100,000 up to as high as $143,000 per annum, and the business was very successful. There were very few railroads in the State at that time, and the trade extended out in all directions a distance of from twenty-five to fifty miles or more.

On December 19, 1865, Mr. Musser was married to Julia E. Hutchinson, daughter of Robert and Julia M. Hutchinson of Iowa City. Four children were born to them: Cliff, now secretary of the Muscatine Sash and Door Co.; Laura, who died in infancy; Helen and John. The last two, both bright and beautiful children, were stricken at the same time with diphtheria in the winter of 1888, and died, the one a day after the other, Helen being thirteen and John six years old. The loss of these children has left a blank in the homes and lives of the parents, which time has not been able to overcome.

In 1869 Mr. Musser became interested as a silent partner with John W. Porter of Iowa City in the lumber business, and in 1873 Mr. Porter, in connection with Mr. Musser, bought out the yard of R. Musser & Co., and the firm name was Musser & Porter until the death of Mr. Porter, in 1883.

In 1871 the firm of R. Musser & Co. built their saw mill on the banks of the Mississippi river in Muscatine, and from the start P. M. Musser was a large stockholder.

After Mr. Porter bought into the business in Iowa City in 1873, Mr. Musser left the business there largely in his charge and spent most of his week-days in Muscatine in connection with the manufacturing business there, spending his Sundays at home. He continued his residence in Iowa City until 1875, when he removed to Muscatine, where he now has a lovely home on the bluffs, overlooking a beautiful view of the Mississippi river and the surrounding country.

In the management of the business at Muscatine, the uncles, Peter and Richard, took care of the manufacturing department, while P. M. Musser had general charge of the office and the selling of the product of the mill. He has during all the time up to the present taken an active part in the management of the Musser Lumber Co., and is also president of the Cook, Musser & Co. State Bank and Trust Co. of Muscatine. He is also interested in the Huttig Bros. Manufacturing Co. and Muscatine Sash and Door Co. of Muscatine, the Pine Tree Lumber Co. of Little Falls, Minn., and the Musser-Sauntry Land, Logging and Manufacturing Co. of Stillwater, Minn., besides a number of other interests and investments.

By nature Mr. Musser is very generous, and is known as one of the most liberal of the citizens of Muscatine. He has given largely to all of the religious and benevolent work that has appealed to him as right, and lately gave a nice building for an old ladies' home, which is proving a great blessing to its inmates.

There is one thing in Mr. Musser's disposition that is quite noticeable, and that is, that he cannot bear to see anything go to waste. He can lose a large sum of money in some investment, and preserve his usual equanimity, but if he sees a board broken without good cause, or a shingle or lath thrown out into the wood-pile, which should have been utilized, there is where he gets worked up, and his patience sorely tried.

He loves a good horse, and between him and his son they usually have several good animals in their stable.

He is an active member of the Methodist Episcopal church, and is also a Knight Templar and Scottish Rite Mason.

He is now in the prime of life, and while he has never been a strong man, still he comes from a long-lived ancestry, and we trust he may live for many years to enjoy his well-earned fortune.

Benjamin Hershey of Muscatine, Iowa, had for forty years prior to his decease, in 1893, been recognized as one of the more prominent lumbermen of the Mississippi river. He was born in Manor township, Lancaster county, Pennsylvania, April 10, 1813, to Joseph and Hester (Hostetter) Hershey. Upon the father's side the family was of Swiss origin, and its advent in America dates from early colonial times. Upon the maternal side German descent is recognized, and the family of Hostetter was among the settlers of Pennsylvania prior to the revolutionary war. Benjamin, the second of a family of five children, received a common school education, and at the age of nineteen made an extended tour through the west, so far as the eastern boundary of Illinois. This trip occupied three months, a greater portion of it having been accomplished on horseback. Returning to Pennsylvania, in company with a drover who was taking a herd of cattle to the eastern market, he now settled down upon the farm which, at his father's death, came into his possession, and for eighteen years operated it successfully, raising and owning some of the finest blooded horses in the State.

In 1851 Mr. Hershey removed west to Muscatine, his family following him in the succeeding year. In May, 1853, he rented a small saw mill in what is now called South Muscatine, which he afterwards purchased and operated until 1857, when he proceeded to build a mill costing $70,000 and containing four gangs of saws, in addition to a mulay used for siding down the larger logs. This mill was subsequently enlarged until an annual capacity of 50,000,000 feet was reached. Mr. Hershey was recognized by the saw mill fraternity as the pioneer in the use of thin gang saws, running with satisfactory results as early as 1876, saws of eighteen-gauge thickness making kerf of but one-eighth inch. About 1880 he purchased the Burdick mill, or what was then known as the lower mill, in South Muscatine, which he practically rebuilt, increasing its capacity almost to that of the upper mill; and, in addition, he purchased a mill site on Lake St. Croix, at Stillwater, Minnesota, and there erected another mill with a capacity of 25,000,000 feet per annum, the product of which was also for a number of years marketed at Muscatine, being rafted and towed to that point. He was one of the incorporators of the Mississippi River Logging Company and one of the larger shareholders in it and in the different concerns with which it is allied. In 1875 he incorporated the Hershey Lumber Company with a capital stock of $200,000, and, with a controlling interest in the stock, was elected president, an office which he continued to hold until his death, in 1893, when he was succeeded by Thomas Irvine, of whom mention is elsewhere made in this work. In addition to the extensive enterprises already mentioned, he was largely interested in similar undertakings in the south, being president and principal owner in the Hershey Land and Lumber Company of Sargent, and of the Ozark Lumber Company of Winona, two of the largest lumber concerns in the state of Missouri. It would be out of place in a work of this nature to take up the many different enterprises in which he was actively engaged outside of his extensive lumber business, but the benefits which the agriculturists and stock breeders of the west have received from his large importations and operations in that field ought not to go unmentioned.

Mr. Hershey was married in 1836 to Miss Elizabeth Witmer of Lancaster county, Pennsylvania, a lady of rare mental and moral gifts and attainments, whose life was unceasingly devoted to the welfare and comfort of the home circles, which owed so much to her wise direction and noble influence. By this union Mr. Hershey had four children, Sarah J., Mary Amanda, Elizabeth and Mira. Elizabeth died in early maidenhood, at Muscatine in 1856, and Amanda died in Munich, Bavaria, whither she had gone to complete her studies, in December, 1876. Prior to going abroad she had for several years been chief accountant in her father's office, and in that capacity will be pleasantly remembered by many of the early lumbermen of Iowa. For several years past, after completing her studies abroad, Miss Mira has taken an active interest in the operations of the Hershey Lumber Company and has held office therein as secretary and vice-president. The eldest daughter, Sarah J., is now the wife of Mr. Clarence Eddy, the renowned organist of Chicago, and is noted as an artist and linguist. After having studied under the best masters of London, Berlin and Milan, she returned to Chicago and established the Hershey School of Musical Art, an institution that ranked among the foremost in the country, and which was domiciled in the Hershey Music Hall on Madison street, a building erected by Mr. Hershey expressly for its use.

While the early education of Mr. Hershey was of a limited character, yet, being a man of large natural gifts and resources, a close observer of mankind and human nature, and a careful reader of current literature and events, he had long been considered as ranking among the best informed men of his day. He was a notable man even in this generation of notable characters. He was a man of broad and capacious mind and of remarkable force of character, sagacity and foresight. He was, moreover, a man of great frankness and honesty of speech, never attempting to conceal his views or opinions, without regard to person or place, and while cordial and affable in disposition, he was ever impatient of any opposition to his plans or wishes. His life was throughout a career of integrity, and he was a true benefactor to many.

Mr. Hershey died at Chicago in the summer of 1893, in the fullness of years, mourned and regretted by all who, through his long and busy life, had esteemed him as a friend, a citizen, or business man. He was buried at Muscatine, where, two years later, his estimable wife was laid beside him, in the little cemetery at the crest of the hill, overlooking the Father of Waters.

Thomas Irvine, now of St. Paul, Minnesota, has for the past thirty years been so intimately associated with the lumber interests of the Mississippi river that few men are better known in lumber circles. Mr. Irvine was born in York county, Ontario, July 2, 1841, and, receiving a preparatory education in the common schools, graduated at the normal school of Weston, Ontario, and at the age of seventeen, began teaching school. Later the young man became associated with the British-American Commercial College of Toronto as teacher of mathematics and bookkeeping.

In 1867 he became acquainted with Mr. B. Hershey of Muscatine, Iowa, and engaged with him to go to Muscatine in charge of the office business of Mr. Hershey at that place. After familiarizing himself with the business in the several capacities of accountant, salesman, log buyer, and general business manager, he was admitted to a partnership, and in 1871 the firm of Hershey & Irvine was established. This partnership continued until 1876, when the business was incorporated under the name of the Muscatine Lumber and Manufacturing Company, which was shortly afterwards changed to the Hershey Lumber Company, under which style it still continues. This company, operating two mills at Muscatine, Iowa, and one at Stillwater, Minnesota, has ranked among the most extensive manufacturers of lumber upon the banks of the Mississippi, its product in 1890 having reached 77,000,000 feet of lumber and 38,000,000 shingles, with a proportionate production of lath. Upon the death of Mr. Hershey, in 1893, Mr. Irvine succeeded to the presidency of the company, and still occupies that position. In 1873 Mr. Irvine was elected secretary of the Mississippi River Logging Company, and in the following year was chosen secretary of the Beef Slough Manufacturing, Booming, Log Driving and Transportation Co., with both of which organizations the Hershey Lumber Co. had been actively connected from their inception. These positions are still held by Mr. Irvine, although of late years calling for little personal attention on his part to the details of their operations. His election to these positions necessitated his removal from Muscatine, and thereafter removing to Beef Slough, and in 1890 to St. Paul, he devoted himself to the up-river interests of the boom companies and the extended interests which have grown out of their operations. Mr. Irvine, in 1876, was married to Miss Emily A. Hills of Wabasha, Minnesota, and has one son, Horace Hills Irvine, now twenty years of age and about to enter upon a business career.

The immense interests of the two companies, of which, as secretary, Mr. Irvine has for so many years had much of the practical direction, are fully mentioned in another portion of this work, and present a record which testifies to the practical business abilities of an able management, in the conduct of one of the most prominent branches of the lumber trade of the Mississippi and Chippewa rivers. The business of Hershey & Irvine and its successors, the Muscatine Lumber and Manufacturing Co., and the Hershey Lumber Co., aggregating a production of fully 800,000,000 feet of lumber and 400,000,000 shingles, presents a no mean evidence of the business qualifications of the more than a quarter-cen-

B Hershey.

tury active connection of Mr. Irvine in its management.

BURLINGTON, IOWA.

Probably the first saw mill in Des Moines county, Iowa, was built in 1836 by a man named Anderson, at a point just below the city of Burlington, its work being confined to the native timber of hardwoods, cottonwood, etc. In 1838 James McKell built at Burlington on the site now occupied by the mill of the Burlington Lumber Co. McKell sold this mill to a Mr. Mellinger, who, in 1852, sold to Haskell & Buttles, who, in 1866, sold to Berry & Co., a firm composed of William Berry, Hiram Gilman, and Carson & Rand, the latter firm owning one-half. In 1877, Mr. Berry retiring from the firm, Carson & Rand took the necessary steps to incorporate the Burlington Lumber Co., which speedily took rank as one of the most prominent lumber concerns of the Mississippi river region, a position which it still holds.

Recurring to early records, we find, in 1874, a minute of the following mills: J. Dickie & Co., built in 1872, with one circular; capacity estimated at 5,000,000 yearly; cut of 1874, 3,100,000 feet of lumber, 6,600,000 shingles. Berry & Co. (out of which grew the Burlington Lumber Co., as stated above), date not given; capacity estimated at 7,000,000; cut of 1874, 5,500,000 feet of lumber, 1,200,000 shingles. W. E. Cook & Co., two mills (shingle), built 1872; one circular; cut of 1874, 16,000,000 shingles.

The Burlington Lumber Company, from its organization, added to the capacity of its mill by the adoption of new devices and the enlargement of its facilities, and, by 1880, reported a cut of 14,000,000 feet, with 3,500,000 shingles, increased by 1890 to 20,000,000 feet and 6,000,000 shingles. This company, since 1884, has been under the active management of Horace S. Rand and William Carson, Jr., sons of William Carson and E. D. Rand, sketches of whose lives will be found elsewhere in this volume, but of whom it may be here be said that in 1842 Mr. E. D. Rand began "pulling" the first rafted lumber handled in Burlington, and Mr. Carson was one of the earliest pioneers of the Chippewa valley. The earlier association of these gentlemen was in a firm known as E. D. Rand & Co., which later became the Rand Lumber Co. (1878), and which is still actively engaged in handling rafted lumber and supplying a line of retail yards throughout Iowa. The Burlington Lumber Co. and the Rand Lumber Co. are now doing one of the largest lines of lumber business on the Mississippi river.

There have been several mills at Burlington; one mentioned above was built in the "50s" by William Cook (better known locally as "Shingle" Cook), whose manufacture in 1874 had reached 16,000,000 shingles. During the "40s" a mill was built by a man named Smith on the site now occupied by the Union depot; Smith sold this mill to Shannon & Knox, and they to a Mr. Heisey; this mill is credited with sawing the first logs which were rafted down the Mississippi river, they having been purchased by E. D. Rand, who had them sawed into lumber at this mill. In 1867 two mills were started north of the town, one by Robinson & Blanding, the other by Duncan & Hosford; about the same time Dickey, Harper & Ashenfelt built a mill just below the present railroad bridge. In 1872 William Berry built what was afterward known as the Cascade mill, operated by the Cascade Lumber Co., which was in commission until 1896, when it was burned. This mill reported a cut of 10,000,000 feet of lumber and 3,000,000 shingles for several years. In 1880 George Millard and others incorporated the "Island Mill Co." and built a mill, which is now being operated by the John D. Harmer Manufacturing Co., with a reported cut of 12,000,000 feet of lumber, 5,000,000 shingles and 3,000,000 lath yearly.

Among the older operators at Burlington were John Gilbert and Thomas Hedge, who, as Gilbert & Hedge, began operations in 1851, the business now being conducted by a son of Mr. Gilbert and a grandson of Mr. Hedge. From 1866 to 1877 there were three firms engaged in handling rafted lumber from the mills on the Black, Chippewa and St. Croix, viz., Millard & Tomlinson, E. Joy & Co., and Frank Parsons. Of the adjuncts of the lumber business in the manufacture of sash, doors, etc., Nairn, Gillies & Co. were the pioneers at Burlington, these gentlemen coming directly from Scotland, having built up a fine business, and having an excellent reputation for fine work. A large proportion of the business at Burlington consists of rafted lumber, sawed at the mills of the Upper Mississippi streams, and rafted in cribs, which are elsewhere fully described. The rafts, on arrival, are "pulled" from the water, the lumber thoroughly washed and placed in piles to dry, preparatory to dressing and shipment to all points in the interior, the average stocks carried by the mills and dealers being not far from 50,000,000 feet of lumber, with a proportionate amount of shingles and lath. While with the extension of railroads from interior points to all sections of the manufacturing district of Wisconsin and Minnesota the bulk of the manufacture is shipped by rail to consuming points, there is still a large amount of lumber rafted to down-river points, of which Burlington, Hannibal and St. Louis are the principal receiving markets.

Hon. Elbridge D. Rand was for many years one of the most prominent citizens of Burlington, Iowa, and no less prominent in the lumber circles of the Mississippi river. He was born at Watertown, Mass., July 22, 1814, and was the eldest son of Samuel and Mary (Carter) Rand. By the death of his father, during his own infancy, Eldridge was early thrown upon his own resources, working out so soon as his age would permit, until he reached his fifteenth year, gathering such education as was possible in the public schools, while doing chores night and morning for his board. At the age of fifteen he went to Providence, R. I., where he entered upon an apprenticeship in the soap and candle business, in which employment he remained until 1835, when he went to Hamilton, Ohio, as superintendent of the packing house of J. N. Fisher. Two years later he left this employ and started for Lacon, Ill., with the intention of engaging in the packing business with a brother of his former employer, but learning that the place was unhealthy, changed his plans and went to Quincy, Ill., where he engaged in farming, stock raising and pork packing. A fire and heavy losses on a government contract crippled him for a time, but paying all his indebtedness, with nothing left but his honor and his grit, he, with indomitable perseverance, went in the spring of 1839, to Iowa, and located on the Des Moines river, at what was known as the "Blackhawk purchase," near the present town of Keosauqua, where he entered a claim and put forty acres in crop, but being dissatisfied with his surroundings sold out before he had harvested. Determining now to accept an offer from Mr. Fisher to engage in business at Lacon, Ill., he started eastward with a team, but one of his horses having given out from improper shoeing, he halted at a point near the site of the present Burlington college, and after spending a night under his wagon, finding that it was likely to be several weeks before his animal would be able to proceed on his journey, turned his beasts into a pasture, and secured work in a packing house. During a lull in the business, he, during the following winter, engaged in the draying business, hiring a man to drive, and assisting at such times as his occupation in the packing house permitted. Continuing in the employ of Bridgeman & Partridge until 1843, he then formed a partnership with Peasley & Brooks, in a business combining provisions, pork packing and lumber, in which he continued for about three years, during which time he purchased a tract of fifteen acres of land for which he paid $50 per acre, which, considered by his friends at that time to be a poor investment, afterward proved to be a profitable speculation. Heavy losses by the firm, for which Mr. Rand was in no wise responsible, led to his termination of his connection with it, and once again he saw his accumulated capital swept away. Borrowing the necessary funds from parties who had acquired confidence in a young man whom they recognized to possess the energy and honesty requisite to success, he erected a small packing-house of his own, and again started in the packing business, and his profits of the first year netting him $7,000, he, in the following year, erected a brick packing-house and enlarged his business upon a more extensive scale. Having, in his previous connection, engaged to an extent in the lumber business in a small way, and later increasing it gradually in connection with his packing operations, he, in 1850, abandoned packing, and concentrated his capital in the lumber trade, and at a later date purchased a saw mill, which had been erected upon the banks of the river by W. S. Berry and a Doctor Hill, and out of this venture grew the Burlington Lumber Company, which has become one of the largest lumber manufacturing concerns on the Mississippi river. In 1852, he formed an alliance with William Carson and Henry Eaton of Wisconsin, gentlemen who figure prominently in this history in connection with the early operations on the Chippewa river, and who under the name of Carson & Eaton, had mills in Wisconsin, and were largely interested in pine lands, the firm at Burlington being known as E. D. Rand & Co. Messrs. Carson & Eaton were largely interested in pine lands, the Eaton interest in which, was at a later date purchased by Carson & Rand, who thereafter continued the business.

Mr. Rand was also one of the organizers of the Valley Lumber Co., of Eau Claire; Chippewa Falls Lumber & Boom Co., Chippewa Falls, and Rice Lake Lumber Co., Eau Claire, Wis., in the first two of which companies his son, Horace S. Rand, is now a director and officer.

In 1866 Carson & Rand formed a partnership with W. S. Berry and H. H. Gilman, known as Berry & Co. In 1877 they bought out the Berry & Gilman interest and organized the Burlington Lumber Co., giving two of his employes an interest in the company, one of whom, Wm. Lyon, still retains an active interest, looking after the logging and manufacturing end of the business. In 1884, realizing that younger hands must soon take charge, he turned the active management of this company over to his son, Horace S. Rand and Wm. Carson, Jr., but up to the time of his death, this company always remained Mr. Rand's favorite organization, being its first president, a position now held by Horace S. Rand. In 1879 the firm of E. D. Rand Co. was reorganized under the name of the Rand Lumber Co., Mr. Rand being its first president, which position is now held by his son-in-law, Mr. J. M. Sherfey, who was interested with him in the lumber business since 1855.

In 1881 Carson & Rand organized at Keokuk, Iowa, the Carson & Rand Lumber Co., putting his sons, George D. Rand and Elbridge D. Rand, in charge, the latter of which continued as manager until his death in 1897. This company is now owned by the Valley Lumber Co., of Eau Claire, Wis., and under the active management of T. G. Foster, formerly cashier of the National State Bank, who together with Mrs. Rand and Horace S. Rand, acted as trustees, under the deed of trust, which made it possible to continue actively Mr. Rand's various interests, until they could be divided among the heirs.

Mr. Rand was a public-spirited man, and was identified with a variety of institutions of a public nature. In 1862 he became interested in the State Bank of Burlington, and from its becoming a National Bank in 1865, held a position of director. In 1869 he was elected president, serving for two years, when he retired from that position, only again to be elected in 1881, serving until 1883. He was one of the incorporators of the Iowa State Savings Bank, of which he was a director and vice-president. He was also identified with the First National Bank, serving as a member of its directorate. He was largely interested in the support of the Narrow Gauge railroad, and took an active part in the building of the Burlington & Missouri River Railroad. He was prominently connected with the various schemes for the improvement of the city, both in a private and public way, through the erection of some of the finest blocks which adorned the city, beside numerous private residences, including his own beautiful mansion. He was much interested in the propagation of fruit and ornamental trees, establishing a nursery at his home, from which he encouraged his neighbors also to beautify their grounds. The fifteen acres of land, purchased by him in 1852, together with an adjoining fifty-five acres, was laid out in lots and blocks, and has constituted an important addition to the city. In early life Mr. Rand was an ardent Whig, but on the organization of the Republican party, he joined its ranks, supporting its policy for many years, but in later life shook off party ties and became a "Liberal Republican." While never a politician, he served as a member of the Iowa legislature in 1856, and was for several years a member of the city council of Burlington, but from 1863, had held no public official position. Mr. Rand was a member of the Congregational society of Burlington from 1844, and while a liberal contributor to its support, was also generous in his aid to all the other church organizations of the city, knowing no narrowness of creed or sect, but sympathizing with all endeavors to advance the cause of religion, and of every endeavor to elevate mankind.

He was twice married, being united with Miss Sarah A. Proud of Centerville, Ohio, in April, 1837, six children being born to them, of whom but two are now living, Mary A., wife of John M. Sherfey of Burlington, and George D., who resides at Keokuk, which city he has served several terms as mayor. Mrs. Rand died at Burlington, in 1850. June 13, 1852, Mr. Rand married Mrs. Caroline A. Roberts, who was the daughter of one of Burlington's pioneer citizens, Solomon Sherfey. Mrs. Rand is a native of Hagerstown, Md.; to this union four children were born, three sons and one daughter: Elbridge D., who died in 1897, formerly vice-president of the Carson-Rand Lumber Company; Charles W., a member of the wholesale carpet and furniture house of Wyman, Rand & Co., and president of the Northwestern Furniture Co.; Horace S., who is president of the Burlington Lumber Co., and the Carson-Rand Co., Keokuk; and Miss Carrie, who resides with her mother at the "Pines," as the family residence has long been known. Each of the sons has inherited their father's abnormal aptitude for business, and each holds an enviable position in the community in which he resides, as a useful and public-spirited citizen and reliable business man.

Mr. Rand died at his home in Burlington on Easter morning, April 10, 1887, after a short illness and in the seventy-third year of his age, leaving to his family the priceless heritage of a life-long record of probity, honor and business integrity, united with a public spirit which had endeared him to his business associates, and to the community over which he had for so many years exercised a most beneficent influence, and in which he had been recognized as the just, courteous and considerate friend of even the humblest laborer in his employ, equally with the richer and more prosperous. Plain and unassuming in manner, without ostentation or display, earnest in his devotion to family and friends, sympathetic and warm-hearted, this essentially self-made man, who had by his own indomitable industry and energy risen from poverty to the possession of wealth, notwithstanding trials and reverses which would have daunted the courage of any man who was not imbued with the highest principle and self-reliance, this brief history of Eldridge D Rand can but be an inspiration and example worthy the emulation of all who may read the record of his useful life.

HANNIBAL, MO.

Has borne an important part in the lumber industries of the Mississippi river.

Perhaps it was in 1834 when a steam saw mill was built on Bear Creek at the corner of Broadway and Second streets in Hannibal, where Bear Creek ran at that time. The proprietors were Jacob Smith of Hannibal, and —— Johnson of Boonville. It is said that the first frame houses in the town were built of lumber sawed at this mill, and not whipsawed, as was common in early days. This mill was the second steam mill in the county. It was burned in 1836. In 1840 or '41 a saw mill was built at the mouth of Bear Creek, probably on the site of the first mentioned, by a man named Patterson. A short time afterward another mill was built by Conway & Gilbert. The history of Marion county states that in 1844 there were three saw mills and two planing mills in Hannibal. A fourth mill was built by Charles & Frank Snider in 1853, located just north of the city. This was followed by a mill built by Mr. Brooks in 1858. He was succeeded in '63 by Dubach & Hinton. These mills were all small, consisting of only one rotary. In the winter of '66 G. C. Hixon and A. W. Pettibone built a mill on the present site of the Hannibal saw mill. This had only one rotary in the beginning, but was afterward improved and made a modern mill, and was operated by them until it was destroyed by fire in 1882. It was rebuilt by a corporation, the Hannibal Saw Mill Company, of which A. W. Pettibone was president. This mill is being operated now, with a yearly capacity of 30,000,000 feet.

The first lumber yard was started in 1856 by Mills & Glasscock. Davis & Coburn opened a yard in 1858. J. J. Cruikshank, Sr., began in the lumber business in 1856; in 1867 he sold out to his son J. J. Cruikshank, Jr., about this time, also, yards were operated by Fuller & Amadown, and James Barrick. S. T. McKnight & Co. began here in 1862, followed by Price & McKnight, Dorman & Toll, John Ure & Co., Rowe & Toll, and Hearne, Herriman & Co. (1865), John Rablin; Davis, Bokee & Garth (somewhere near this time); Dulany & McVeigh (1867), Hearne, Herriman & Co., were succeeded by Herriman & Waples, and they in turn by Herriman & Curd Co.; the Northwestern Lumber Company was incorporated in July, 1873, succeeding S. T. McKnight & Co.; the Badger State Company was organized in 1874, as successors to John Ure & Co., and Alfred Toll, of the firm of Rowe & Toll; D. Dubach & Co. opened a lumber yard in 1859; Dulany & McVeigh were succeeded by the Empire Lumber Company in 1881.

Quoting from a history of Marion county, published in 1883:

> "The leading business interest in Hannibal is that of lumber. The capital represented therein in 1883, according to the Board of Trade Review, was $2,925,000, employing 1,000 men, 300 teams, and with an annual pay roll of $573,129. The lumber and logs come from the Upper Mississippi—from the pineries of Wisconsin and Minnesota. It reaches this city in monster rafts, guided and controlled by tow boats. Having reached the levee it

is taken from the river by hand, washed, sorted, piled and then loaded on wagons and hauled to the various yards, where it is again piled for drying, and when seasoned is distributed to all points west and south in Missouri, Kansas, Colorado, Arkansas, Indian Territory, Texas and New Mexico, being sold to the consumer, the wholesale or retail dealer, or to branch yards, of which there are a large number owned and operated by the parent companies in Hannibal.

In the year 1882 the amount of lumber handled here was 230,890,664 feet, loading 22,491 cars. The lumber yards are now located on Bear Creek bottom, and extend from near the river up the creek, about two miles. Through the yards or by their sides run three railroads, the H. and St. Jo., the M., K. and T. (Mo. Pacific), and the St. L., H. & K.

The lumber companies of Hannibal are:

The Empire Lumber Company, organized in July, 1881, as successors to Ingram, Kennedy & Co., of Eau Claire, Wis.; the Charles Horton Lumber Co., of Winona, Minn., and the old firm of Dulany & McVeigh, of Hannibal. The latter firm established the Hannibal yards in 1867, and that year sold 5,000,000 feet. The Empire Company's yards are eighteen acres in extent, with a piling capacity of 30,000,000 feet. Their stocks in pile and water aggregate 16,000,000 feet of lumber, 10,000,000 shingles and 3,000,000 lath. Their output from these yards for 1882 reached 28,000,000 feet of lumber, 17,000,000 shingles and 7,000,000 lath. The yards run from bluff to bluff, embracing both railways named; have ample sidings for handling their heavy shipments, and are provided with substantial planing mills, sheds and the best modern appointments for the conduct of their extensive traffic. They employ 150 men and 40 teams, and honor a weekly pay-roll of $1,900 in the busy season. (See Chippewa Valley.)

The Northwestern Lumber Company was incorporated in July, 1873, succeeding S. T. McKnight & Co., who began the lumber trade here in 1862, with annual sales of only 1,500,000 feet. The present officers are D. R. Moon, Eau Claire, Wis., president; S. T. McKnight, Minneapolis, Minn., secretary and treasurer; J. T. Barber, Hannibal, assistant treasurer and manager. The amount of lumber sold the first year of its incorporation by this company was 11,459,366 feet; estimated amount sold in 1883, at Hannibal, 25,000,000 feet; at Eau Claire, Wis., 18,000,000; at St. Joseph, Mo. (branch yard), 5,000,000 feet—a total of 48,000,000 feet. The sales for 1882 from the Hannibal yards aggregated 31,796,895 feet of lumber, 19,000,000 shingles, and 14,000,000 lath. The company owns mills and other valuable interests in Wisconsin, and runs its own steamboats. During the busy season it employs at Hannibal 224 men, 60 teams, and its weekly pay-roll is $2,200. Much of its success at Hannibal is due to its efficient manager, Col. J. T. Barber. (See Chippewa Valley.)

The Badger State Company was organized in 1874, as successors to John Ure & Co. and Alfred Toll, of the firm of Rowe & Toll, each of whom began the lumber trade in 1865. The company has a cash capital and surplus fund amounting to $520,000, owns valuable timber tracts in Wisconsin, has a one-third interest in the Hannibal Saw Mill Company, and charters two steamers for its river work. At Hannibal it employs in the busy season 180 men, 40 teams, and has a weekly pay-roll of $1,950. The present officers are George T. Hoagland, president; John Ure of Hannibal, vice-president; F. W. Woodward of Eau Claire, Wis., secretary, and Alfred Toll of Hannibal, treasurer.

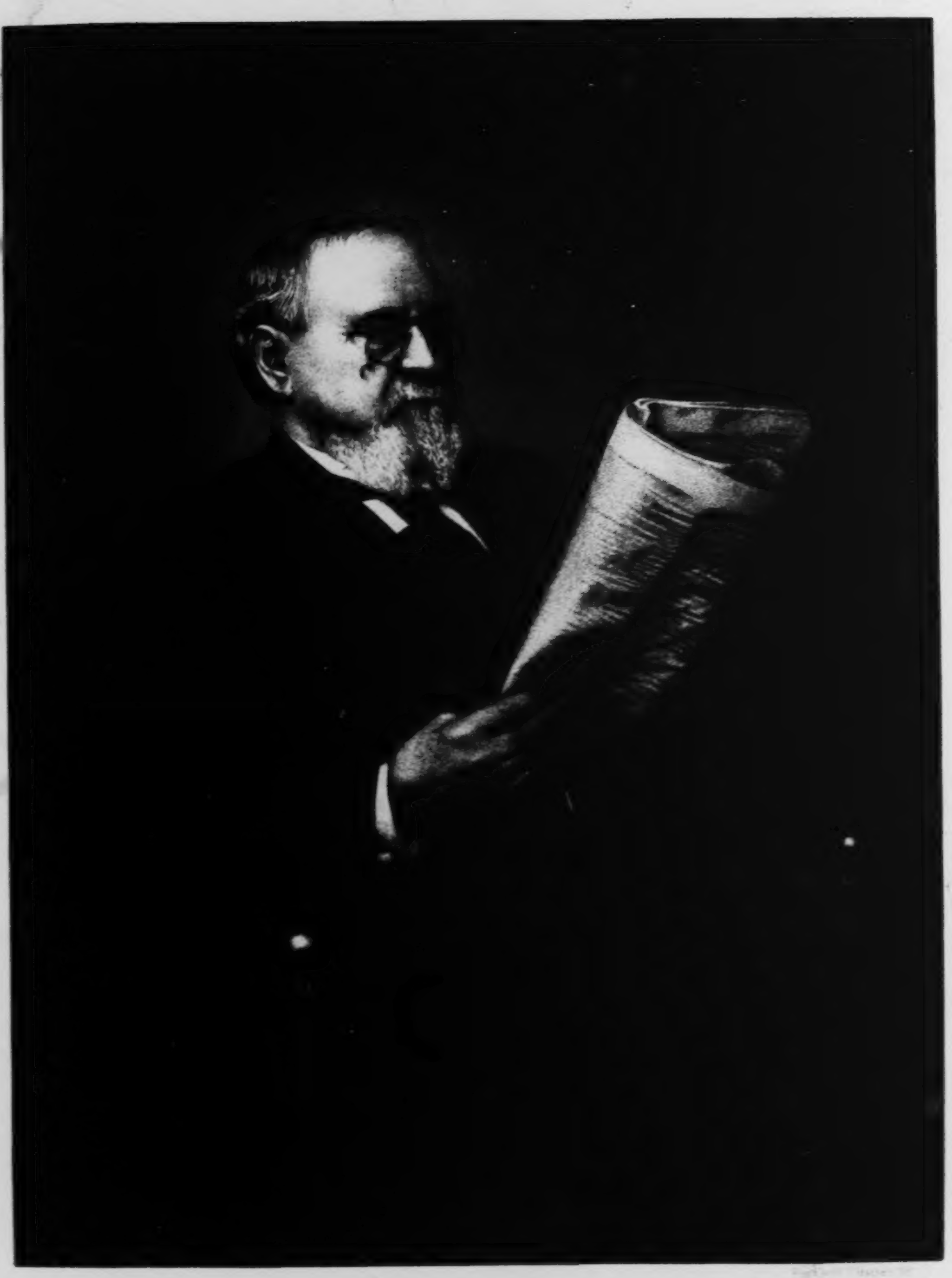
D. Dubach & Co. began in Hannibal in 1858, with a small planing mill, opened a lumber yard the following year, and sold 2,000,000 feet. They now own a large yard, two planing mills and other interests. (This company later owned and operated the Dells Saw Mill at Eau Claire, Wis.)

Herriman & Waples are successors to Hearne, Herriman & Co., who began trade in Hannibal, in 1865. They employ 125 men and 35 teams, and have a weekly pay-roll of $1,500. They carry about 15,000,000 feet of lumber, 6,000,000 shingles, and 3,000,000 lath, their sales for 1882 comprising 14,000,000 feet of lumber, 8,000,000 shingles and 4,000,000 lath.

John Conlon is one of the oldest lumbermen in the Mississippi valley, having been in the trade since 1853. He carries about 3,000,000 feet of lumber, 750,000 shingles and 500,000 lath, which are about the figures of his annual trade.

The Hannibal Saw Mill Co. succeeded G. C. Hixon & Co. in 1883, their yard being located on the river and on the Long Line railway in the southern part of the city. Other lumber firms, large and extensive dealers at the present time, are the Bluff City Lumber Company, and J. J. Cruikshank.

The process of taking lumber from the river was greatly improved in 1882, when an organization was effected composed of members of the Northwestern Lumber Co., although independent of that company, having a capital stock of $10,000, and which became a great convenience to the lumbermen, some of whose yards were located so far as two miles from the river from which the lumber was hauled by teams. The new company laid a railroad track connecting the various yards with the railroads centering at Hannibal and also extending into the river obliquely down stream, and in front of a dock which is parallel to it, and such distance from it as to bring the center of the track under the center of a crib of lumber lying alongside of the dock. A flat car, constructed for the purpose, is backed down the track, under the crib of lumber, to which it is made fast, and car and crib hauled out on to a side-track, and the operation repeated until as many cars are loaded as desired, when they are run to the yard and side-tracked. Here the mud and sand from the river is washed from the lumber, the water for this purpose coming from the water-works, the reservoir of which is 230 feet above the level of Main street, and directed upon the lumber through hose attached to hydrants conveniently planted for this



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purpose, after which the lumber is sorted and piled for drying. During the year 1883 this company has transported from the river to the yards all the lumber hauled by the Northwestern Lumber Company, the Hannibal Lumber Company, the Bluff City Lumber Company, and J. J. Cruikshank, Jr.

Closely connected with the lumber interests of Hannibal are the planing mills. D. Dubach & Co. have two mills; Herriman & Waples, one mill; Hogg & Sons, one mill; J. F. Meyer & Co., one mill. Shedd & Patton are operating extensive planing mills and a sash, door and blind factory, at the junction of Ninth street with the Hannibal & St. Joe track. They have six flooring, four moulding, and two surfacing machines, two re-saws, a timber machine that will dress 17 inches square or octagon timber 50 feet long, and are manufacturing odd sizes of sash, doors, and blinds, and make a specialty of mouldings. They also manufacture stairs, stair railings, newel posts, balusters, frames, casings, base and kindred work; are running an extensive box factory; employ 45 to 60 men, with a weekly pay-roll of $400 to $500.

The Hannibal Saw Mills Company, successors to G. C. Hixon & Co., was incorporated in December, 1882, with A. B. Pettibone as president; W. B. Pettibone, vice-president and manager, and J. W. Mounce, secretary and treasurer. The old mill of G. C. Hixon & Co., of which A. W. Pettibone had been manager since its erection, had proven a great success, cutting 24,000,000 feet of lumber in the year ending October 1, 1882. This mill was burned October 18, 1882. The Hannibal Saw Mill Company was immediately organized and purchased the property and began the rebuilding of the mill on the ashes of the former one. When run to its full capacity this mill will manufacture 12,500 feet of lumber, 3,500 laths and 2,500 shingles per hour, and employs, with the yard adjoining, 175 hands, with a monthly pay-roll of about $8,000.

This mill is supplied with logs from the extensive pineries of the Upper Mississippi, where the company owns extensive tracts of pine lands. The mill is located on the south side of town, on the bank of the river, with the track of the St. L., K. & N. W. railway running through the yard."

Among the more prominent lumbermen of Hannibal for a long term of years we may name the Dulany Brothers, Daniel M. and William H.

Col. Daniel Maupin Dulany.—The Dulany brothers have for more than forty years been closely connected with the lumber trade of the Mississippi river, and have been recognized as among the most intelligent and enterprising members of the profession. Col. Daniel M. Dulany was born in Kentucky, July 27, 1816, the son of Joseph S. and Sarah (Maupin) Dulany, the former a native of Culpepper county, Va., the latter a native of Kentucky. The Dulany family was of French extraction, and were among the earlier settlers of Virginia, Mr. Dulany's grandfather having been born in that state. So early as 1816 the parents of Col. Dulany moved from Kentucky and settled in that portion of Missouri, since embraced in Howard county, where they engaged in farming until 1830, when they removed to Monroe county in the same state. Daniel there attended school and assisted in the work of the farm, until 1835, when he worked in a saw mill at Clinton, Mo., and invested his earnings in Missouri land, and later, in company with his brother William H., he engaged in the tobacco business at Paris, Mo., in which he was very successful. In 1846 Col. Dulany entered politics and was appointed deputy sheriff and collector for Monroe county, and in 1848 was elected sheriff of the county, as the candidate of the Whig party, and on the expiration of his term was re-elected for another term of two years. In 1852 he was elected justice of the county court, holding this office for a period of five years, during which time he was also engaged in the dry goods business at Paris, Mo. With the unsettled condition of the country, resulting from the outbreak of the civil war, Mr. Dulany removed to Quincy, Ill., his brother following him later, where they resumed their tobacco business. In 1867 the brothers returned to Missouri, and settling at Hannibal, began a lumber business in connection with J. H. McVeigh, who had been a partner with them at Quincy. The firm of Dulany & McVeigh conducted a thriving business, ever increasing in its volume, until 1881, when Col. Dulany seeing the necessity for consolidation, an incorporation known as the Empire Lumber Co. was formed under the laws of Wisconsin, the capital stock of which was placed at $800,000; the headquarters of this company were at Eau Claire, Wis., and its officers were O. H. Ingram, president; D. M. Dulany, vice-president; W. H. Dulany, treasurer, and Charles Horton of Winona, Minn., secretary. This company, of which Mr. Dulany's estate is still a stockholder, operated a saw mill of 25,000,000 feet of lumber and 15,000,000 shingles yearly capacity at Eau Claire, at which point it has large interests, owning and controlling a large amount of pine land in Wisconsin, although this branch of assets is being rapidly depleted by the heavy annual cut of its mills. The company also have a mill of 30,000,000 feet yearly capacity at Winona, Minn. (see sketch of Charles Horton, also history of Winona). In addition to the extensive lumber interests of Mr. Dulany in the Empire Lumber Co., he was interested in the Rice Lake Lumber Company of Rice Lake, Wis., with a yearly production of 30,000,000 feet of lumber and 13,000,000 shingles; was president of the Gem City Saw Mill & Lumber Co. of Quincy, Ill., producing 20,000,000 feet of lumber and 15,000,000 shingles per year, and a director in the Hannibal Saw Mill Co. of Hannibal, with a yearly cut of 25,000,000 feet of lumber and 18,000,000 shingles; was a stockholder in the Missouri Lumber & Mining Co. of Grandin, Mo., in the manufacture of the excellent yellow pine of that state; he was also president of the R. J. Hurley Lumber Co. at Butler, Mo., and president of the Hannibal sash, door and blind factory at Hannibal. Upon the organization of the Hannibal Bank, he was elected its president, and continued in that position until his death, being again re-elected on the same day in which he was called from life's activities.

In 1841, Mr. Dulany was married to Miss Carintha Maupin at Paris, Mo., who died two years later; in 1846, he was married to Miss Mary Thompson of Monroe county, Mo., who departed this life the same year, and in 1851, Miss Ann E. Craig was chosen as his third companion, she also being called from his side two years later. In 1856, he married Mrs. Mary Williams, daughter of Pleasant M. Burgess, Esq., of Virginia. To them was born a daughter Mary Ida, who is now the wife of George A. Mahan, a prominent attorney of Hannibal; they have a son named Daniel Dulany Mahan.

Col. Dulany and his estimable wife (who survives him) were for many years members of the Christian church, in which he was an elder, and a leading and energetic worker of great influence, such as positive and consistent men are sure to possess in every community. While of late years taking no active part in politics, he was an ardent Democrat, while thoroughly respecting and honoring those who differed with him, and few men were more widely known, or more highly respected; he was universally regarded as one of "nature's noblemen,"a courtly gentleman of the old school, of broad perception, large benevolence, warm-hearted and sympathetic, genial and companionable. With the multifarious business interests which engrossed his time, Col. Dulany was yet deeply interested in the prosperity of Hannibal and contributed in no small degree to the advancement of its interests, and as well to that of the county in which, at a point about four miles from the city, he had one of the finest farms in the State, embracing five hundred acres devoted to the cultivation of grain, and the breeding of a better grade of live stock, his farming interests serving as a recreation from his heavy business cares.

Col. Dulany was a typical lumberman in his broad view, and intelligent and active interest in the advancement of the material interests of the nation, state and city, and in his death, which occurred at Hannibal, June 2d, 1897, the community lost one of its most valuable citizens. For years prior to his death he was deeply engrossed in heavy business cares, yet found time earnestly to look to the interests of the poor and the afflicted. He was chiefly instrumental in founding the Home for the Friendless, at Hannibal and found frequent occasion to donate large sums to other charitable institutions, including the orphan schools of the State, devoting much time and money to this class of charities, even upon the day of his death planning to relieve a school for orphan girls from a burdensome indebtedness. In such generous gifts he was modest and unostentatious, and few knew of his kind and liberal acts. He was instrumental in building a beautiful church at Hannibal, contributing more than one-third of the money and all of his time to this work; it is needless to say that he was especially loved and honored by this congregation. His bequests to public institutions in Missouri, including colleges, libraries, orphan schools, homes for indigent children and his church were free and liberal and were a fair index of his generous and kindly nature.

William Henry Dulany, like his brother, Daniel M. Dulany, has been for many years prominent in the lumber circles of Hannibal, and of the Mississippi river. He was born in what is now Howard county, Missouri, January 9, 1818. His ancestry was originally of French extraction, but his progenitors were among the earlier settlers of this country, his grandfather, Joseph Dulany, having been born in Culpepper county, Virginia, May 6, 1744, and upon the breaking out of the War of the Revolution, taking part as a soldier in securing the liberties of the country. Joseph Stanton, father of William H., was born in Culpepper county, August 26, 1786, and emigrated with his parents in 1799, to the then wild region of the present Madison county, Kentucky. In 1812, he married Miss Sarah Maupin, a native of Madison county, whose father, Capt. Daniel Maupin, was also a captain in the Revolution. In September, 1816, Joseph S. Dulany removed with his family to what is now Howard county, Missouri, and spent the winters of 1816 and 1817 in Fort Cooper, and in the spring of the latter year he with others selected lands and built their cabins close together to protect themselves from the Indians, who were far from friendly toward the settlers. Here William H. Dulany, as before stated, was born, and here the family continued to reside until 1830, when they removed to what is now Monroe county, which was more sparsely settled and where game was more plentiful. All the schooling which William received was gained before the removal from Howard county, and was of the limited character afforded by the facilities of a new country. The boys went to a "subscription" school, maintained usually in the winter months. The teacher expected to receive $10 per month, and "boarded around" with the scholars, a week with one, and then with another. Their first teacher was John T. Cleveland, an uncle of ex-president Grover Cleveland. Upon removing to Monroe county, they found the country too sparsely settled to maintain a school, and only the faithful efforts of their mother could be availed of. In 1832, she was taken from them by death, and the boys set out in the world to seek their fortune, without a cent in their pockets and barely a change of clothing, but with indomitable wills to conquer the obstacles which lay in their path. William secured his first job with a settler, who was opening up a new farm, and remained with him for three years, splitting rails, building fences, clearing ground and doing regular farm work at a compensation (munificent for the times) of $100 per year. On leaving this employ he engaged with Col. A. W. Reed in the work of constructing a dam on Coon creek, and the building of a saw mill, his wages being $10 per month, and in this he continued for about two years, when his brother Daniel M. and himself concluded that they could make more money in doing job work, splitting rails, hewing logs, building log cabins and sawing lumber with a whipsaw. There was abundance of work to be had, as the country was rapidly settling up, mostly with Virginians and Kentuckians. About 1843, William found steady employ in a tobacco factory at Glasgow, Missouri, and remained there until 1845, when both William and Daniel, having saved a little money, concluded to start a tobacco factory at Paris, Monroe county, Mo.; here they prospered until the breaking out of the civil war, when the troublous times led them to remove to Quincy, Illinois, where they established the first tobacco factory in that city. During this period, however, the gold excitement in California broke out, and in 1849, William joined the argonauts, crossing the plains with mule teams. He remained there about two years and engaged in mining with fair success, returning home in 1852 somewhat better off financially, wages in the mines being one ounce ($16) of gold per day in the earlier part of the time. With increased means the business of the Paris tobacco factory was extended, and prospered until the removal to Quincy. In 1865 he purchased a valuable farm in Randolph county, Missouri, which after operating for a year and a half he sold and went to Hannibal, where he established a lumber business in connection with his brother Daniel M. and Mr. J. H. McVeigh, under the firm name of Dulany & McVeigh. This business prospered for many years, and in 1881 the Empire Lumber Company was formed, with O. H. Ingram of Eau Claire, Wisconsin, as president; D. M. Dulany, vice-president; W. H. Dulany, treasurer, and Charles Horton of Winona, Minnesota, secretary, with mills at Eau Claire of capacity for the manufacture of 30,000,000 feet of lumber and 15,000,000 shingles annually, supplemented later by a mill at Winona of equal manufacturing capacity, the business of the company, conducted upon a capitalization of $800,000, amounting to the vast sum of $1,000,000 yearly. Mr. Dulany is also a stockholder and director in the Hannibal Saw Mill Company, manufacturing 30,000,000 feet per year, and of the Standard Lumber Company of Dubuque, Iowa, with a manufacture of 36,000,000 feet of lumber and 10,000,000 shingles per season. He is a member of the Chippewa Lumber & Boom Company of Wisconsin, and is president of the R. J. Hurley Lumber Company of Missouri, and a director in the Rice Lake Lumber Company of Rice Lake, Wisconsin, whose yearly product is 30,000,000 feet of lumber and 13,000,000 shingles; and of the Gem City Saw Mill Company of Quincy, Ill., whose annual production is 30,000,000 feet of lumber and 15,000,000 shingles. He is a stockholder in the Hannibal Stove Company, and in the bank of Hannibal, having other large interests in various parts of the country.

The poor boy of the wild region of a half-century ago has for many years been the honored and enterprising citizen of a rich city in a populous state, from which the Indians long since disappeared, and in which fertile farms and proud cities have developed, and log cabins and rough "shaacks" have given place to magnificent business blocks and ornate dwellings. And this grand development has been in no small degree due to such men as the Dulany brothers, whose enterprise, industry, foresight and intelligence have transformed the vast forests of the north into a means for developing the broad prairies into fertile farms and the small hamlets into thriving cities. Mr. Dulany was married Nov. 14, 1848, to Miss Susan Isabelle, daughter of Isaiah and Cynthia (Tilford) Van Zandt of Jacksonville, Illinois, but natives of Kentucky, in which state Mrs. Dulany was born, April 2d, 1826. To them were born six children, viz.: Mary T., who married T. G. Dulany, who is connected with the Empire Lumber Company; Daniel M., Jr., who is also connected with the company at Eau Claire; George W., manager of the Hannibal branch of the Empire Lumber Company; Willie and Katie, who died in infancy, and Isabelle, now wife of Dr. John H. Duncan of St. Louis, Missouri. The wife and mother departed this life at Paris, Monroe county, Missouri, January 4, 1861. Mr. Dulany was again married November 30, 1862, to Mrs. Tiltha C. Bodine, daughter of Rev. Anderson Woods, a distinguished minister of the Baptist church. To them was born a son, James G. Dulany.

In earlier years Mr. Dulany was a Whig in politics, but during more recent years has allied himself with the Prohibition party, in the principles of which he is an earnest and consistent believer. His life's history is a practical illustration of what a man can accomplish who starts out in life with fixed purposes based upon right principles. His early struggles with poverty taught him sympathy for those who strive under adverse conditions, and his benevolent and genial nature has attracted the confidence and esteem of all with whom he has come in contact, both in private and public life. Domestic in his tastes, he has in his devotion to his family set an example which has been most salutary in its influence upon others. As a lumberman he has enjoyed the confidence and esteem of his business associates, while wielding an influence which caused his counsels to possess great weight in all matters pertaining to the welfare of the craft. Mr. Dulany spends the evening of life in the bosom of a happy household, beloved and held in the highest regard by the community, which has been so highly benefitted by his long and useful career.

Philip Gruner & Brothers.—The present age is undoubtedly the one of greatest progress in every way, and every year witnesses extended operations in lumbering. One of the leading lumbering firms of the west is that of Philip Gruner & Brothers Lumber Company of St. Louis, Mo., which consists of Philip, Gustavus A. and Louis Gruner. Philip is a native of Alsace. His father, who was born in Germany, returned thither with his family, where he incurred the displeasure of the German government in the troublous times of 1848, and, like many of the better classes, Carl Shurz and others among them, decided to come to the United States, where liberty of thought and action would not be abridged, having for some time been incarcerated in a German prison on account of his political views. At this time Philip, the eldest, was attending college and had received a liberal education, speaking the German, French and English languages fluently, and he was chosen by the family as the one best fitted to come to the United States and to have a home in readiness for the family upon their arrival. He arrived in this country in 1853, and, as he had no means, he found it uphill work to obtain employment of any kind. In 1854 he became stranded in Chicago, owing a board bill, which he was in a measure compelled to liquidate by doing service as a chambermaid. To show the honesty and decided character of the man at this critical period of his life, it is only necessary to relate that when he was in deepest distress he could have secured a good paying position with a sectarian book concern had he answered yes to questions concerning his orthodoxy, but this he would not do, and this honesty to principle has been one of his leading characteristics throughout a long, eventful and successful business career. His word has always been his bond, and his name connected with any business enterprise is synonymous with honesty, fidelity and strict adherence to the most conservative business practices. From 1854 to 1859 he was at Manistee, Mich., and other points in the lumber business for himself and in the employ of others. In 1859 he went to St. Louis, Mo., and embarked in the lumber trade, with which he has ever since been connected. He is president of the Washington Mutual Fire Insurance Company of St. Louis, is consul for the Belgian government in that city, and is acting consul for the French government at the same place, besides which he has held other positions of honor and trust. He is courteous, cordial and approachable, is liberal in his views concerning all things, and is one of the best known and most highly esteemed citizens of St. Louis. He is married and has a family of three children.

* * *

W. R. Delong

CHAPTER XLI.

LOGGING COMPANIES AND BOOMS.

THE Mississippi River Logging Company was organized under the laws of Iowa, January 12, 1871, its objects being to secure to the mills of the Mississippi river a readier supply of logs at cheaper rates than was possible under the system of individual effort, and to combine the work on the Chippewa river, the principal supply of logs previous to this time having come from the Black and St. Croix rivers.

Several meetings had been held by the manufacturers having mills at various points on the river during the year 1870, and on December 28, 1870, a meeting was held at the Briggs House, Chicago, at which a plan of organization was adopted, which culminated a fortnight later in the application for articles of incorporation. This meeting was attended by representatives of the following named manufacturing firms: Clinton, Iowa: C. Lamb & Sons; W. J. Young & Co. Davenport, Iowa: Schricker & Mueller; L. S. Davis. Keokuk, Iowa: Taber & Co. McGregor, Iowa: W. & J. Fleming. Muscatine, Iowa: B. Hershey. Lansing, Iowa: Hemenway, Wood & Co. Rock Island, Ill.: Weyerhaeuser & Denkmann. Moline, Ill.: Keator & Wilson; Dimock, Gould & Co. St. Louis, Mo.: Hill, Lemon & Co.; H. S. Parker & Co.; J. Tamor & Co.; A. Boeckeler & Co. Winona, Minn.: Youman Bros.; Laird, Norton & Co.

The object in view was the purchase of pine lands and logs on the Chippewa river, the lands then held by the individual members being increased by purchase of other lands, and the output distributed to the mills of the members at a pro rata value and amount.

The first officers of the company were: L. Schricker, president; W. J. Young, vice-president; W. H. Laird, secretary and treasurer. At a meeting held in July, 1871, the president reported the purchase of 34,625,765 feet of logs, of which, to that early date, 9,852,990 feet had been distributed to the mills of the members.

At the annual meeting in 1872 Frederick Weyerhaeuser was elected president; in 1873 Thomas Irvine was elected secretary, and in 1874 Artemas Lamb was elected vice-president, and those gentlemen have continued in these respective official positions to the present time.

In 1873 the company took control of the Beef Slough Boom, at the mouth of the Chippewa, and in 1881 it purchased the control of the Chippewa Lumber and Boom Company at Chippewa Falls. The Chippewa Logging Co. was organized in 1881, and included the members of the Mississippi River Logging Company, and the mill men at Eau Claire, forming what has for many years been known as the "Pool." In 1887 the company bought the mills and premises of the Eau Claire Lumber Company, which, soon after, was purchased from it by the Northwestern Lumber Company, and has since been operated by them.

The organization of these logging companies has proved very beneficial to the manufacturers on the Mississippi river in systematizing the work of procuring log stock, and in its delivery at the mills. No less powerful organizations could have controlled the vast bodies of forest land requisite for the successful operation of the mills. Where individual enterprise could secure thousands of acres in competition with parties able to purchase but a few hundred acres, thus segregating the forests and rendering continued supplies not only doubtful, but expensive, a company like this we have mentioned could purchase hundreds of thousands of acres and assure the members of adequate supplies for the running of their mills, so long as the forests should last. So, too, where the river driving and rafting, as conducted by individuals, was expensive and tedious, its management on a large scale reduced the uncertainties, as well as the expense, to the minimum.

The booms controlled by these companies were located at Beef Slough until 1889, when a new boom was constructed at West Newton on the Minnesota side of the Mississippi river. The first record obtainable of the work at Beef Slough embraces the year 1867, when (according to records kept by George Denning, deceased, who was at that time state inspector of the Eau Claire lumber district, and for which we are indebted to Mr. W. W. McDonnell, who was connected with the Beef Slough boom from its commencement until 1876), individual operations reported the running of 12,000,000 feet, which, in 1869 (no figures are available for 1868), increased to 26,000,000 feet, and in 1870 dropped to 10,000,000 feet, all of which was reported by individual members of the Beef Slough Company and others, and named as coming from the Chippewa and Menomonie rivers. In 1871 the Mississippi River Logging Co. had charge of the work, and reported 13,000,000 feet, increased in 1872 to 30,000,000 feet, and, being now in full operation, the powers of the venture are seen in 1873-4, when 274,367,900 feet, log scale, was reported, falling to 161,500,000 feet in 1875, and as low as 68,117,000 feet in the depressed times of 1878. The following year, however, the output reached 249,000,000 feet, and continued to increase until it reached a culminating point in 1885 with 535,220,000 feet, dropping to 405,000,000 in 1887, 542,000,000 in 1888, 38,705,000 in 1889 (an overstock in previous years lessening the cut of logs the previous winter), rising to 149,933,000 in 1889, in which year the West Newton boom was operated and handled 362,237,000 feet. The total reported output of the Beef Slough boom from 1867 to 1889 aggregated 5,301,019,170 feet.

The operations of the West Newton boom reached high water mark in 1892 with 632,154,160, from which point the figures declined to a record of 296,218,390 feet in 1896, the total output from 1889 aggregating 3,064,856,760 feet.

The total reported output of these two booms from 1873 to 1896 was 8,274,875,930 feet, log scale, which would fall short by fully twenty per cent of the lumber manufactured, and the gross total may safely be stated at 10,000,000,000 feet, all of which was rafted to mills at points further south as far as St. Louis, Missouri.

While reliable data is lacking regarding the log supply of the mills at the more southerly points previous to 1873, and from the St. Croix and Black rivers during the period embraced in the above record, it may not be far out of the way to place the total volume handled by the mills at Clinton, Davenport, Keokuk, Winona, Lansing, McGregor, Rock Island, Muscatine, Moline and St. Louis, dating from their earliest days, at a total volume of 15,000,000,000 feet. It is equally a matter of surmise as to the extent of the log resources which may yet be available for the supply of these mills (many of which have already gone out of commission), but the timber resources of the logging and lumber companies of which we have treated in this chapter may be fairly estimated at not to exceed, if, indeed, they will equal, 8,000,000,000 feet, and it will be at once realized by the reader that the remaining days of the pine timber resources of the streams upon which the companies rely may be measured by years rather than by decades. It may further be added that estimates of the remaining pine timber resources of the State at large, while wholly a matter of surmise, are placed by good judges as low as 10,000,000,000 feet, and as high as 16,000,000,000 feet, divided among the mills of all sections of the State.

THE RIVER BOOMS.

In speaking of the Chippewa Valley, frequent mention has been made of the "booms" required for holding the logs which were floated down the river for the use of the mills on the Mississippi river, and a short description of this necessary adjunct to extensive and successful lumbering is not out of place, and in this connection the historian takes the liberty of quoting from an admirable work upon the Chippewa Valley and its history, issued by Thomas E. Randall in 1875, and upon which the historian has freely drawn for many of the facts which he presents in this work. Mr. Randall's name frequently appears in these pages in connection with the pioneer days of the Chippewa Valley, and as the rafting customs of the Wisconsin tributaries of the Mississippi differ in some respects from those of other and deeper streams, we prefer Mr. Randall's description of the methods in vogue at Beef Slough, to anything the historian could independently offer.

"Every person who has ascended the Mississippi, or other shallow, sandy river, in low water, on a steamboat, and felt the shock as she ran on a sand bar, must have some idea of the shape or form of the bar, which in almost every instance is a continually moving mass of sand stretching obliquely across the river, with a bold, bluff bank and deep water on the lower side, with a thin sheet of uneven depth spread out over the long upper slope, everywhere getting shallower, until it reaches the very brink, where a perceptible fall is noticed and the current slackened by its fall into deeper water, and anyone who has observed the course of the boat as she feels her way along, endeavoring to find where the channel is, has noticed that she ran along on the under side of the bluff bar, perhaps nearly across the river, the channel having changed to the opposite side in that short distance. Now a raft floating down the river, guided by long sweeping oars, needs to be kept in the same serpentine channel, because the steamboat has taken the deepest water there is, and the only way it can be made to float over the next bar is to keep it up close under the bar above, until the draft of water will take it through, which is frequently a difficult task to perform, requiring the maturest judgment, skillful piloting, and rapid handling of the raft.

The reader will bear in mind that there is probably a shallow draft of water over the whole length of this oblique sand bar, and a constant tendency of the raft to drift down with the current onto the bar below, although it may be very thin, and whatever appliances can be brought to bear upon the raft to check its downward force, must be an important auxiliary in guiding the raft, and for many years the raftsmen on this river felt the necessity for some such mechanical agency, which was at length found in the very simple, but immensely serviceable contrivance called 'the snatch pole,' by the aid of which fully fifty per cent is saved in running lumber to the Mississippi.

The method or art of rafting lumber on the Chippewa is very much like that pursued on the Delaware, Susquehanna, Allegheny and Ohio rivers. Cribs sixteen by thirty-two feet, instead of the old style platform, is now the invariable shape of the first compact form of raft into which the lumber is placed and firmly fastened by ironwood 'grub pins' inserted through two-inch plank, those on the under side or bottom of the crib being called 'runners,' and those on the top 'binders.' The grub pins are turned in a lathe, with a head on one end which is neatly fitted into the under side of the lower plank or runner, so as to make a smooth surface. These cribs are formed on ways, with rollers on which they rest, and when the crib is of the desired thickness—twelve to twenty courses according to the stage of water—a strong lever called a 'witch,' having a heavy iron clamp on one end, is placed over the end of each grub pin, with a fulcrum bearing on the binder, by which means the grub pin is drawn upward, thereby causing the runner and binder to be drawn together with great force, binding the lumber between, tightly together, when the grub pin being securely wedged, the crib is finished. The fastening which holds it to the ways being now removed, the crib slides into the water. Seven of these cribs constitute a 'string,' and four strings form a Chippewa raft. The grub pins extend a foot or more above the binder, and form snubbing posts, while serving to unite and hold the cribs together. By their aid 'snubbing works' are erected on the raft by which it is checked and landed. It is also by means of these pins that the snatch pole and line are operated to check the head way, and in guiding the raft. This implement is about sixteen feet long and six inches in diameter at the thickest part, which is about three feet from the lower end. Upon this lower end a strong steel pointed socket is fastened, and a band of iron to which a strong ring is fastened, being driven down to within three feet from the end, from which it tapers gradually to proper size at the upper end. A 'snatch line' is fastened to the ring, and lies coiled near the stern of the raft. Approaching one of the intricate passages of the river, before the stern of the raft has passed the first named bar, one of the oarsmen seizes the snatch pole, and bounding into the water, hastens along the bar in the direction in which it is desired to hold the raft, and by rapid movement thrusts the heavy steel point of the pole into the sand, holding firmly to the other end at an angle of forty-five degrees, while the pilot quick as thought has the rope coiled around first one and then another of the grub pins, continually checking its onward course so that by the time the bar is passed, the raft lies nearly still below it; the raft is now easily controlled with the oars to the precise channel over the bar below, although involving the necessity of winding along a serpentine route that without the aid of the snatch pole could not have been made, as the raft would have drifted upon the bar, making it necessary to separate the cribs, and take them separately over or around, and to some convenient place for again coupling up. The shifting character of the Chippewa and Wisconsin rivers, the channels in which are subject to constant changes from the drifting sands, render economic devices to be of incalculable value."

Referring more directly to log booming, Mr. Randall's interesting work says:

"In construction, the booms of this river are of two kinds, stiff and thorough-shot, and are adapted to two principal purposes, and are designated as jam boom and shear boom. The former as its name indicates is a fixed obstruction placed in the river, or across some part of the channel, so as to effectually stop the logs and retain them until wanted for the mill, or to form into rafts, and is usually what is termed a thorough-shot boom, and is formed of very strong timbers coupled at the ends with six-inch bolts, or thorough-shots, the ends of two short timbers uniting, with one long one between them; they are usually hewn on two sides, and the sections thus constructed are fastened to piers planted in the bed of the river at suitable distances to afford support either by driving piles, if the bottom is sand or gravel, or if rock, by filling cribs with immense piles of stones, ponderous chains being used to secure the boom sticks, which trail with the current. Many such piers are erected at various points on the river, usually extending from the foot of some island, so as to increase the storage capacity of a boom, of which the island forms the starting point.

But the boom which guides or 'shears' the logs out of the main channel of the river into these receptables, is a thing of very different construction, and to so construct and arrange a boom of this kind in a navigable river, where steamboats and rafts are frequently passing, that no interruption shall occur, and at the same time direct all the logs floating in the swollen river out of the rapid current into the side boom, has taxed the ingenuity and resources of some of the first inventors of the age, and of the best business men of the northwest. It will readily be supposed that such a boom must present a straight, smooth surface to the logs which float against it; that very strong supports of some kind must sustain it at different points against the powerful current, or it would trail with it; that it must be stiff and of great strength, and finally that it must be flat and wide enough for men to walk and work upon, to facilitate the forwarding of the logs, lest they accumulate by the pressure of the current. It is also apparent that such a boom, or at least the lower portion, must have some contrivance by which it can be swung or closed and opened readily and securely that no detention should be caused to boats or rafts, while yet saving all the logs."

After recounting the various experiments which were undertaken by Daniel Shaw in 1856, and by others at later periods, Mr. Randall goes on to say:

"In 1862 James W. Allen and Levi W. Pond, having taken the contract to boom the logs, found it convenient to have a scow upon which a windlass could be worked, located at the lower end of their boom sticks, and in hauling up the scow in such manner as to present its side to the current, observed that the current striking against its side had the effect of throwing the boom measurably up the stream and against the current obliquely across the river, holding itself firmly against the headlong torrent and crushing masses of floating logs and drift-wood, as if firmly anchored to a rock-bound shore, forcing the lower end of the boom out of the direct current, by an angle of thirty degrees or more. Availing themselves of this discovery, they applied the principle direct, by placing wings or rudders upon the sides of their boom sticks, at intervals along the lower sides or edge of the boom in such manner that they would lie close to the sides, when necessary to open the boom for the passage of boats or rafts, or could be expanded by ropes attached to the outer ends and extending to the upper end of the boom, where a windlass was employed to force the rudders out against the current, which, reacting against the pressure on the opposite side, held the boom and all the logs which came against it across the powerful current, glancing or steering them with wonderful facility into the desired haven. So highly was this discovery prized, and so greatly was it appreciated, that the legitimate time for procuring a patent having in the course of experiments looking to its perfection, been allowed to lapse, congress by a special act recognized the invention as one entitled to exemption from the usual law of limitation and ordered that patents should issue, an exception of which but few instances have been noted in the history of the nation.

CHAPTER XLII.

SUMMARY OF PRODUCTION AND ANALYSIS OF VALUES WITH DETAILED STATISTICS.

IN summing up the work of the mills of the northwest, the historian appends a statement of the results of his investigations, which will be found in the tabulated resume upon another page, and from which it will be seen that Wisconsin has produced 70,177,358,651 feet of pine lumber from its forests, while Minnesota has added 36,149,816,193 feet to the 161,750,546,631 feet contributed by Michigan, to the sum total of 268,077,721,475 feet, which our compilations find to be the product of the pine forests of the northwest during, practically, the period embraced between 1840 and 1898, and to which must be added the hardwood production, the figures of which are almost wholly speculative.

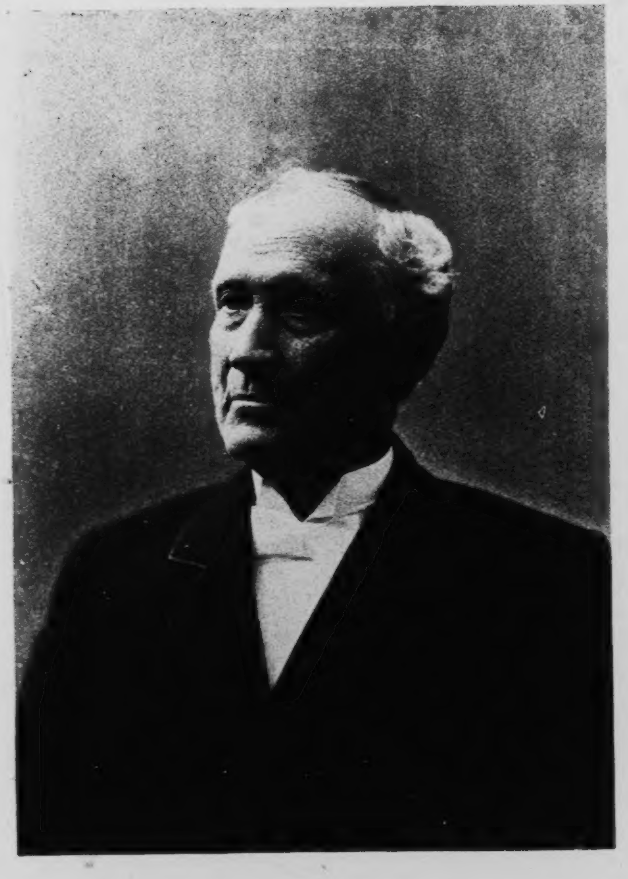
So far as Michigan is concerned, the historian is satisfied with his figures of 50,000,000,000 feet, making a gross production of timber from the forests of that State of 211,750,546,631 feet, but of the hardwood, hemlock and cedar trade of Wisconsin and Minnesota he finds less data for his guidance, and admits that his figures are open to criticism, while yet it must not be forgotten that hundreds of small mills scattered all over the states named, have for fully a half-century, been engaged in a local manufacture, of which no record has ever been made, while an enormous production of square oak timber, railroad ties and staves, hemlock bark and ties, and cedar in poles, shingles and ties, aggregate a volume far beyond any production of the mills in sawed lumber of these varieties of timber. So, also, in the division of the pine product of Wisconsin and Minnesota it is difficult to separate the figures of production, in view of the fact that the St. Croix is the dividing line between the two states, and the timber of both states has been borne upon the waters of that stream to a market, and the figures of the St. Croix river production necessarily include, to an extent, the timber of both states. The same condition exists regarding the Menominee river and also the region named as in the Duluth district, while the product of the Mississippi river mills should be credited to two states. An estimate in gross of 15,000,000,000 feet would probably not be excessive for the production of hardwood, cedar and hemlock in Wisconsin and Minnesota, of which 10,000,000,000 feet to the former and 5,000,000,000 to the latter would not be an unfair proportion. In summing up, therefore, the lumber product of the three states, the historian submits as his judgment the following figures of gross production:

From Michigan forests, pine	161,750,546,631
From Michigan forests, hardwood	50,000,000,000
Total from Michigan forests	211,750,546,631
From Wisconsin forests, pine	70,177,358,651
From Wisconsin forests, hardwood, etc.	10,000,000,000
Total from Wisconsin forests	80,177,358,651
From Minnesota forests, pine	36,149,816,193
From Minnesota forests, hardwood	5,000,000,000
Total from Minnesota forests	41,149,816,193
Total from Michigan, Wisconsin and Minnesota, pine	268,077,721.475
Total from Michigan, Wisconsin and Minnesota, hardwood	65,000,000.000
Total product of northwestern forests	333,077,721,475

Assuming the same values for Wisconsin and Minnesota products as was in a previous chapter accorded to that of Michigan, we shall find the value of this product to the three states as follows:

MICHIGAN.

Stumpage value 161,475,000,000 feet pine, @ $3	$484,425,000 00
Labor account, cutting and hauling, @ $3	484,425,000 00
Driving and booming, @ $1	161,475,000 00
Sawing and shipping, @ $4	645,900,000 00
Total stumpage and labor, pine	$1,776,225,000 00
Average sale value at point of manufacture, @ $13	$2,099,175,000 00
50,000,000,000 hardwoods, etc., stumpage, @ $2, labor, shipment, etc. @ $8—$10	$500,000,000 00
Average sale value at point of manufacture, @ $11	550,000,000 00



S. B. Gasliner,

WISCONSIN.

Stumpage value 70,177,358,651 feet pine, @ $3	$210,532,075 95
Labor account, cutting and hauling, @ $3	210,532,075 95
Driving, booming, etc., etc., @ $1.	70,177,358 65
Sawing, shipping, etc., @ $4	280,709,434 60
Total stumpage and labor charges	$771,950,945 15
Average sale value of pine at point of manufacture, @ $13	$912,305,662 46
Stumpage ($2), labor and shipment 10,000,000,000 feet of hardwood, cedar, etc., @ $10	$100,000,000 00
Sale value 10,000,000,000 feet hardwood, @ $11	110,000,000 00

MINNESOTA.

Stumpage 36,149,816,193 feet of pine, @ $3	$108,449,448 57
Labor account, @ $3	108,449,448 57
Driving, booming, etc., @ $1	36,149,816 19
Sawing, shipping, etc., @ $4	144,599,264 77
Total stumpage and labor, @ $11	$397,647,978 10
Average sale value at point of manufacture, @ $13	$469,947,600 50
Stumpage ($2), labor and shipment 5,000,000,000 feet of hardwood, cedar, etc., @ $10	$50,000,000 00
Sale value of same, @ $11	55,000,000 00

Allowing these figures to be approximately correct, we, in an analyzation of the figures, find a stumpage value to the product of the three states as follows:

Michigan	$584,425,000 00
Wisconsin	230,532,075 00
Minnesota	118,449,448 00
Total stumpage value	$933,406,523 00
Labor value, Michigan	$1,690,800,000 00
Labor value, Wisconsin	641,418,869 00
Labor value, Minnesota	329,198,530 00
Total labor value	$2,661,417,399 00
Sale (at mill) value—	
Michigan	$2,649,175,000 00
Wisconsin	1,022,305,662 00
Minnesota	524,947,600 00
Total	$4,196,428,262 00

By this analysis we reach the conclusion that the forests of the northwest have enriched the nation and added to its development the immense sum of four billion one hundred and ninety-six million four hundred and twenty-eight thousand two hundred and sixty-two dollars in the (practically) sixty years of their development, an amount which exceeds the cost to the north, of the civil war of 1861-5, by nearly fifty per cent.

But few appreciate the extent of this vast industry in its comparison with other products of the land, while gold, silver and other minerals are popularly supposed to be of overwhelming importance in adding to the prosperity and comfort of our people and the development of our national resources. A little comparison of figures of production will have a tendency to dispel the illusion. The production of gold in California for the (practically) fifty years, 1848 to 1897, is stated at $1,340,000,000, or less than thirty-three per cent of the lumber production of practically the same period of time, as the lumber production was mainly after that date.

Another interesting comparison may be indulged in in a comparative statement of the yearly value of the forest product of the nation, as presented in the census report of 1890, and the mineral wealth produced in 1895, as found in government statistics of that year, assuming, in the absence of other data, that the mineral production of 1895 was fully equal to that of 1890:

Petroleum (value)	$57,691,279
Coal (bituminous), 135,118,193 tons	115,749,771
Coal (anthracite), 51,785,122 tons	82,019,272
Iron, 9,446,308 tons	105,198,550
Gold, 2,273,629 ounces	47,000,000
Silver, 47,000,000 ounces (coinage value)	60,766,300
Platinum	900
Nickel	3,091
Antimony	68,000
Aluminum	464,500
Quicksilver	1,337,131
Zinc	6,278
Lead	10,365,040
Copper	38,682,346
Total for minerals	$519,352,458
Add wheat, 1895 (estimate)	400,000,000
Total minerals and wheat	$919,352,458
Value of forest product (1890)	$1,035,000,000

The significance of these figures need not be enlarged upon; that they show the value of the forestry interest of the nation in comparison with other products which have been given undue prominence, is at once apparent. Truly, the forests of the land are the Cinderella, neglected and decried, but the greatest individual source of our national wealth when once their importance is demonstrated.

In the volume of timber production shown by these compilations we may find the material to lay a floor one inch in thickness over the entire states of Michigan and Wisconsin, with enough to spare to cover the surface of Connecticut and Rhode Island.

Of the quantity of timber destroyed by fire, either from the clearing of farms or by forest fires, no adequate data is obtainable; many well-informed persons assert that in the past century as much timber has been thus destroyed as has found utilization in commerce, but this the historian would doubt, while inclining to the belief that an estimate of one-third, or 110,000,000,000 feet, would not be excessive.

It were egotism and unwarranted assumption on the part of the historian to assert the actual correctness of the compilations thus presented, but they are submitted as the result of an earnest endeavor on his part truthfully to present the history of the past half-century as regards the forests of the northwest, and probably approximate the actual facts as closely as it is possible to attain correctness. The value of the forests of our land has never led to such careful conservation of figures of production as their importance deserved; we have seen trees everywhere, and they have become so familiar to our sight that we have failed to appreciate their importance as a commercial factor. The pine timber of the northwest was supposed to be illimitable in quantity and inexhaustible in extent, and it is scarcely more than a decade since an awakened sense of its immediate depletion came as a sudden shock to those who counted upon a supply for generations to come. With probably less than ten per cent of the original pine timber growth remaining in the three states under consideration, it is not unlikely that in another half-century a pine tree will be as great a curiosity to our children as it has been a matter of daily observation and use by the past generation, and those who at that time shall read this history will wonder at the waste and extravagance of their forefathers.

As a result of his investigations, the historian presents the following statistics showing the relative production of lumber in the various producing localities of the three states which have been under consideration in the preparation of this work:

Locality.	Total Lumber as reported 1874 to 1897.	Total Shingles reported.	Total Shingles reduced to Logs.	Per cent added.	Total with per cent added for previous to 1874 and unreported Mills.
Saginaw Valley	20,539,358,555	4,851,977,285	21,509,754,012	50	30,764,631,018
Lake Huron Shore, etc	8,748,937,212	1,854,531,071	8,979,843,426	25	11,223,727,768
Lake Erie Points	1,971,096,253	(Slight)	2,500,000,000	100	5,000,000,000
Grand River, etc	1,754,709,757	1,403,628,750	1,930,163,350	50	2,895,245,025
Muskegon River	14,388,106,898	4,228,977,000	14,916,729,023	36	29,758,229,346
White Lake	1,537,378,931	1,032,225,000	1,666,406,931	10	1,833,047,624
Ludington	3,181,060,211	1,398,913,000	3,355,924,336	10	3,691,516,769
Manistee	5,543,268,666	9,789,345,612	6,766,936,867	30	8,797,017,927
Cheboygan	1,932,299,623	327,550,000	1,997,809,623	10	2,197,590,585
Green Bay Shore, etc	14,807,107,496	5,536,351,708	15,449,151,459	25	19,373,954,713
Miscellaneous Michigan	10,549,611,118	8,237,943,775	20,160,545,552	85	36,281,818,283
Chicago & West Michigan R. R	2,113,586,174	2,204,616,500	2,389,163,234	10	2,628,079,557
Grand Rapids & Indiana R. R	4,801,265,679	4,839,254,750	5,406,172,522	10	5,946,789,774
Detroit, Lansing & Northern R. R	1,813,966,868	4,276,284,250	2,869,223,718	10	3,156,146,089
Flint & Pere Marquette R. R	1,894,419,754	3,710,575,563	2,636,534,866	15	6,032,015,095*
Mackinaw Division, Michigan Central R. R	2,350,139,747	1,839,019,250	3,017,943,687	10	3,319,737,055
Wisconsin River	892,379,000	698,721,000	979,719,000	300	3,918,876,000‡
Chippewa River	7,687,557,879	3,312,496,690	8,101,619,965	25	10,127,024,956
Wolf River	2,784,655,055	2,908,000,000	3,148,155,055	50	4,722,232,582
Wis. Valley Div., C., M. & St. P. R. R	5,452,245,413	2,404,111,600	5,752,759,363	33	7,670,345,817
Wisconsin Central R. R	4,599,177,000	2,646,435,100	4,929,981,000	10	5,422,979,000
Milwaukee, Lake Shore & Western R. R	3,014,990,068	1,898,629,500	3,252,318,756	10	3,677,318,756
Lumber Line, C., St. P., M. & O. R. R	3,715,688,429	1,636,238,908	3,920,218,291	10	4,313,218,291
Black River	4,426,923,770	3,934,400,000	4,918,803,770	25	6,148,504,712
St. Croix River	3,395,204,688	1,298,985,000	3,557,577,813	30	4,624,851,156
Mississippi River	29,114,652,398	11,335,958,940	30,531,651,015	20	36,637,981,218
Duluth District	4,863,731,473	1,315,282,000	5,028,141,723	10	5,550,955,895
Miscellaneous Wisconsin	5,069,131,191	2,440,569,450	5,374,202,371	40	7,238,883,319
Miscellaneous Minnesota	775,274,290	188,202,250	987,001,571	100	1,974,003,142
Gross Total of Pine Production					268,077,721,475
Hardwood, Cedar, etc					65,000,000,000
Gross Total of Forest Production					333,077,721,475

*And Logs 1,940,193,619. ‡R. R, after 1880.

APPORTIONMENT.

Michigan Pine	161,750,546,631 feet.
" Hardwood	50,000,000,000 "
Total	211,750,546,631 feet.
Wisconsin Pine	70,177,358,651 feet.
" Hardwood	10,000,000,000 "
Total	80,177,358,651 feet.
Minnesota Pine	36,149,816,193 feet.
" Hardwood	5,000,000,000 "
Total	41,149,816,193 feet.
Gross Total	333,077,721,475 feet.

CHAPTER XLIII.—LUMBER JOURNALISM.

SKETCHES OF A FEW OF THE LEADING SPIRITS OF LUMBER JOURNALISM.

FEW, if any, influences have been as potent in the development of the vast industry treated of in this history, as have been the Lumber Journals of the Northwest. The first publication devoted to this interest was The Lumberman's Gazette of Bay City, Michigan, which was inaugurated in 1872 by Henry S. Dow (of whose personal history we find little data), assisted in the editorial and more practical departments by the historian, whose long experience in the trade was thus brought the more effectually to bear for its growth and extension. The Gazette afterward passed into the hands of Edwin T. Bennett, for many years a newspaper publisher of Bay City, by whom it was conducted until 1887, when its good-will was sold to J. E. Defebaugh of The Chicago Timberman, and its publication suspended. During its earlier years William B. Judson was connected with the editorial management of The Gazette, and in February, 1873, began the publication at Grand Rapids, Michigan, of "The Michigan Lumberman." In January, 1874, the publication was removed to Chicago, where, under the name of "The Northwestern Lumberman," it speedily became the leading exponent of the lumber trade, a position which it has maintained to the present time. About the same time a journal known as "The Wisconsin Lumberman" was issued at Milwaukee, Wis., as was "The Lumber Trade" of Boston, Mass., both of which journals were soon after absorbed by The Northwestern Lumberman. In 1876 "The Mississippi Valley Lumberman and Manufacturer" was established at Minneapolis, by Platt B. Walker, which continues to the present under the able management of Platt B. Walker, Jr. Of this journal, J. Newton Ninde (of whose life we append a sketch) became connected, continuing in the editorial management from 1885 to 1893. In 1881 "The Lumber Trade Journal" of Chicago was started by Seward D. Morgan in the more immediate interests of the retail dealers of the country, which continued publication until 1887, when it was purchased by George W. Hotchkiss and Walter C. Wright and with enlarged scope continued until 1895, when it was removed to New Orleans in the more immediate interest of the now rapidly developing lumber industry of the south.

In 1885 J. E. Defebaugh and A. H. Hitchcock began the publication at Chicago of "The Timberman," a journal which under the later administration of Mr. Defebaugh ranks only second to The Northwestern Lumberman as an exponent of the lumber interests of the nation. In 1881 "The Southern Lumberman" was established at Nashville, Tenn., and has occupied a by no means unimportant position as an exponent of southern lumber interests. In 1888 "The St. Louis Lumberman" was established at St. Louis, Mo., by W. E. Barnes, and is recognized as an influential factor in the general lumber trade. In 1892 A. H. Hitchcock and O. S. Wetmore began the publication at Chicago of "Hardwood," a journal devoted, as its name indicates, to the growing interests of that branch of the lumber trade. This, in 1897, was merged into "The Hardwood Record," established in 1895 by C. D. Strode and since recognized as a prominent and influential exponent of the hardwood lumber trade.

The influence of the lumber journals of the land can hardly be overestimated, and to them may in no small degree be accredited the enormous expansion of the lumber business since 1870, in the introduction to manufacturers of improved appliances for the more economical manufacture, and in pointing out new fields both of production and consumption, while their statistical records are the only means by which the vast industry may now be exploited and its history written, and to their columns (more especially those of The Northwestern Lumberman) is the historian indebted for a large proportion of the data from which this history has been compiled.

Of several of the gentlemen connected with the lumber press the historian has secured personal sketches (that of the historian may be found in the opening pages of this work).

William Bosworth Judson.—In connection with lumber journalism, no name stands out more prominently than that of William B. Judson, editor and proprietor of The Northwestern Lumberman, who by virtue of his long connection with this branch of the lumber business, may correctly be termed the "Dean" of lumber journalism.

Mr. Judson was born at Syracuse, N. Y., May 17, 1849, but was reared on a farm in the northern part of Chenango county, receiving only a common school education. At the age of sixteen he left school and began the struggle of life for himself without a dollar of capital or aid from anyone. He began his newspaper career at eighteen in Piqua, Ohio, where he was for one year local editor of The Miami Valley News. From 1869 to 1871 he undertook an insurance business at Bay City, Mich., where he formed the acquaintance of Henry S. Dow, publisher of the first lumber trade paper, and in his employ spent several months in the office of The Lumberman's Gazette, established by Mr. Dow in 1872. In February, 1873, in connection with Benjamin Wait, he, Mr. Judson, began the publication at Grand Rapids, Mich., of The Michigan Lumberman, which he designed should become the mouth-piece of the lumbermen of the western part of the State. After the first issue, the office of publication was moved to the more prominent lumber center at Muskegon, whence the next eleven issues were sent forth.

In October, 1873, he bought out Mr. Wait's interest, that gentleman, however, continuing as assistant editor of the paper until September, 1874. In January of that year the office was removed to Chicago and the name of Northwestern Lumberman adopted, and by this cognomen it has steadily grown to a position of influence in its peculiar line, second to that of no other trade paper in existence. It is a noteworthy incident in the career of what has come to be recognized as one of the best trade journal properties in the country, that a quarter interest in The Northwestern Lumberman was once sold for $250. The purchaser was E. C. Dicey of Grand Haven, Mich., and Judson & Dicey continued the publication until November, 1874, when Rufus King was admitted to the firm which then became Judson, Dicey & Co. Dicey retired in 1875 and Judson & King continued until 1877, when the business was incorporated as the Lumberman Publishing Company, of which Rufus King was president, J. B. Gridley, secretary and treasurer; Mr. Judson continuing as editor and general manager. In 1880 Mr. Judson became sole proprietor of the business. During this period several lumber journals were started in various sections, among them The Wisconsin Lumberman at Milwaukee, which was absorbed by The Northwestern Lumberman in 1875, after publication for about one year. Subsequently, The Lumber Trade, a weekly paper published in Boston, was likewise absorbed.

The monthly magazine form of 1873-5 was, in 1876, changed to a sixteen-page quarto weekly, and in its growth has now attained a standard size varying from fifty-two to sixty-four pages, with a clientage embracing the whole country, while a large number of copies reach foreign subscribers in all parts of the world. The influence of The Northwestern Lumberman is recognized in all localities where lumber is made or sold, and its spicy editorials and wise resume of each week's changes and events in the lumber world, have gained for it a well deserved reputation as the leading and representative journal of its class. In all its growth, its vicissitudes and prosperity, William B. Judson has been its master spirit and guide, and to his wise administration, in the ready recognition of all those varying phases of the lumber business, of which it was of value, and a necessity to the trade to be informed, is to be attributed the intelligent co-operation and wise conservation which to so great an extent marks the vast lumber trade of the nation, and has made lumber journalism a power for good among all who are interested in the productions of the forest.

Mr. Judson was married in 1872 to Miss Grace King of Rochester, N. Y., two sons and one daughter being the issue of the marriage.

James Elliott Defebaugh.—As a factor in the lumber press of Chicago and the world at large, James E. Defebaugh has attained to universally recognized eminence.

A native of Pennsylvania, Mr. Defebaugh was born at Williamsburg, Blair county, March 28, 1854. He is of Quaker descent upon his mother's side and of Dutch descent on his father's side, his grandfather having come to America from Holland, about the beginning of the nineteenth century. His father, although a silversmith by trade, devoted himself to mercantile pursuits until appointed in later life to be the superintendent of the western division of the Pennsylvania canal.

Mr. Defebaugh's early education was confined to the common schools of his native town and a year's attendance at the academy, all concluded upon the attainment of his thirteenth year. At this period he ran away from school to become what many another successful man has done, a "printer's devil." During the succeeding three years his talents were devoted to sweeping out the office, turning the hand press and the other manual duties appertaining to a printing office, including typesetting. At the age of sixteen he was assigned to a "case" on The Pittsburg Gazette, where he remained for six years.

We next find him employed in the office of The Philadelphia Times, during the period of which service he received the pro tempore appointment of lieutenant-colonel of the Seventeenth Pennsylvania State Guard, at the time in camp. During his incumbency here he served as military correspondent of The Altoona Tribune.

Of a rather delicate physical constitution up to this period, Mr. Defebaugh devoted a part of the ensuing season to work in a stone quarry for the benefit of his health. He seemed to have been benefited, for ever since that time he has been in vigorous health.

It was during the Centennial Exposition at Philadelphia, that he made the acquaintance of the Rev. J. B. McClure, the then managing editor of The Interior, of Chicago, and was induced by the latter gentleman to visit that city the following year. Here he devoted four years to his trade in the offices of R. B. Donnelly and The Inter-Ocean, at the same time taking an active interest in the affairs and work of the Young Men's Christian Association, and serving some portion of the meantime as its financial secretary.

In 1881 he was made secretary of the Burlington (Ia.) branch of the association, in which capacity he remained a year, and then returned to Chicago to associate himself reportorially with The New York Shoe and Leather Reporter and other publications. About this time, Geo. W. Hotchkiss, then secretary of the Chicago Lumbermen's Exchange and the Northwestern Association of Lumber Manufacturers, went on an extended trip abroad and Mr. Defebaugh was temporarily installed in his place. He became interested, of course, in the statistical work incident to the lumber business and so conceived the idea of utilizing his practical publishing experiences in that connection, resulting in the foundation of a lumber journal.

Thus it was that, in 1885, with A. H. Hitchcock for a partner, he entered upon the publication of The Timberman as a sixteen-page quarto. Mr. Hitchcock withdrew the following year, and Mr. Defebaugh has continued the publication meanwhile as an exclusively individual enterprise. The paper at this writing, in its thirteenth year, has attained to high standing as a weekly journal, with a large and prosperous subscription and advertising clientage.

Engaged on The Timberman in the active work

E. W. Brooks

of preparation and publication, there is a force of sub-editors, traveling correspondents, office employes, etc., numbering about a score of persons, together with a large number of local correspondents throughout this country and Europe.

The distinguishing characteristics of The Timberman and the vital attributes of the paper chiefly contributing to its remarkable success, consist, briefly summarized, of its close, energetic and helpful sympathy with all branches and sections of lumber and allied interests, its sleepless alertness as a newspaper, covering every phase of those trades in all parts of the lumber world, and the vigorous, impartial and exhaustive tone and scope of its editorial counsels and comment.

Mr. Defebaugh is undoubtedly endowed in a remarkable measure with the qualifications essential to the successful editorial management of a great newspaper.

In November, 1893, in addition to his other affairs, Mr. Defebaugh assumed editorial and business charge of The Young Men's Era, the international organ of the Young Men's Christian Association, a handsome sixteen-page quarto, with rapidly expanding circulation and influence. As the exclusive publication of the great organization in the interest of which it was maintained, The Era had the world for its field, and two hundred contributors among prominent clergymen, college presidents and leading association workers. Conducting this journal for three years, at the end of that time it became necessary for Mr. Defebaugh, thereafter, to devote his entire time and attention to The Timberman, and the owners of The Era thereupon sold the paper.

In the meanwhile, however, as the editor of The Young Men's Era, and as also an accredited delegate representing this country, Mr. Defebaugh attended the world's congress of the Young Men's Christian Association, held in London, England, in 1894, and took an active part in the deliberations of that great assembly.

During the World's Columbian Exposition in Chicago many European lumbermen visited The Timberman office and became acquainted with the editor. These friendly relationships proved a source of enlightenment to the exporting lumber trade of this country at a later period.

When the London congress had adjourned, Mr. Defebaugh made a tour of Great Britain and continental Europe, and under the cheerfully extended chaperonage, so to speak, of his World's Fair friends, made a close study of European lumber interests in their relations to the exports of lumber from this country. From the copious notes made on this tour, Mr. Defebaugh published a long series of articles in The Timberman of unprecedented character and value in lumber trade journalism.

In 1892 Mr. Defebaugh took an active part in the organization of the Concatenated Order of Hoo Hoo, as a member of the original "Supreme Nine" of that fraternity, composed of votaries of the lumber trade and kindred pursuits, and which now comprises a membership of nearly 6,000. He served a term as the "Snark of the Universe," the highest office within the gift of the order, and is now a member of the "House of Ancients," an inner chamber, composed exclusively of Past Snarks.

Mr. Defebaugh was married in 1883 to Miss Annie E. Carhart, of Chicago, who has presented him with three children, of whom but one is living, the first child (a boy) having died in 1888, and a promising son of seven years dying in June, 1898.

J. Newton Nind, the secretary of the Mississippi Valley Lumbermen's Association, has been directly and indirectly connected with the lumber trade for nearly twenty years. In 1885 he became the editor and largest owner in The Mississippi Valley Lumberman, and continued in that position until the spring of 1893; during that time the paper was brought up from a comparatively unimportant position to the place it now holds in lumber journalism. For four years prior to 1885 he was the regular correspondent at Minneapolis of The Northwestern Lumberman, and had his first contact with lumber journalism in that connection. At the time this relationship was formed he was the city editor of The Pioneer Press in Minneapolis. The managing editor of The Pioneer Press, two or three years previous, had recognized that there were two great interests in the northwest—that of lumber, and wheat and flour, and that no one connected with the paper had any specific knowledge of these subjects. Mr. Nind was assigned to make a study of the lumber resources of the northwest, in the region of which St. Paul was the center, and did this work so well that Mr. Judson of The Northwestern Lumberman soon after engaged him to represent The Lumberman in the northwest. When Mr. Nind retired from daily journalism, he bought an interest in The Mississippi Valley Lumberman, as has already been stated. His connection with the lumber manufacturers of the Mississippi valley was so close that he was made the executive officer of their association when it was organized, nine years ago, and has since filled that position. Prior to this he had been influential in organizing what is now the Northwestern Lumbermen's Association, and was the first secretary of the meeting which resulted in this leading organization of retail lumbermen. He was also one of the incorporators and the first secretary of the Northwestern Hardwood Lumbermen's Association, a position he has filled ever since the organization was effected. For the last four years he has been a regular contributor to The Timberman, as the correspondent from the Upper Mississippi district, and a staff contributor to its editorial pages. During the period in which Mr. Nind has been connected with the lumber trade as a writer on lumber topics, and as the secretary of two of the important associations, he has contributed materially to the literature of the trade, and has played an important part in formulating the plans for organization and inter-organization which now maintain in the trade.

John Newton Nind, the subject of this sketch, was born in St. Charles, Ill., March 11, 1854. He married, in 1878, at Red Wing, Minn., Agnes Williams, the eldest daughter of Reid A. Williams, who was for many years one of the prominent figures in the lumber trade in Chicago. He has a family of three children, and lives in Minneapolis, Minn. In addition to his official duties as secretary of the organizations named, and his connection with lumber journalism, he also edits two journals, devoted to the furniture interests—The Furniture News of Minneapolis and The Furniture Journal of Rockford, Ill.

William Eddy Barns of The St. Louis Lumberman was born at Vevay, Switzerland county, Indiana, August 29, 1853; he attended schools at Greensburg, Indiana, and graduated at the Illinois Wesleyan University at Bloomington, Illinois, in June, 1872.

Mr. Barns had done some newspaper work for various publications, in the way of contributions to their columns, prior to his graduation, but his first regular engagement was as city editor of The Daily Republican of Decatur, Illinois, during which time, as well as subsequently, he acted as correspondent for various Chicago papers.

In 1874 he went to New Orleans as a representative of The Chicago Inter-Ocean, and was, from 1875 to 1884, associate editor of The Central Advocate. In 1884 he purchased a one-half interest in the Journal of Commerce Co. of St. Louis, publishers of The Age of Steel, the oldest mechanical journal in the west, founded in 1857. In 1887 the lumber fraternity of St. Louis encouraged Mr. Barnes to undertake the publication of a paper in the immediate interest of the lumber trade of the south and southwest, and the first number of The St. Louis Lumberman appeared in January, 1888. From small beginnings, this journal has grown to its present goodly standing and proportions. Particular attention is paid in its columns to yellow pine, cypress and the hardwoods of the south.

Mr. Barns is not unknown to the literary world, being the editor and compiler of the two volumes, "Labor Problem," published by Harper Bros. of New York, and "Nobody Knows," published by Funk & Wagnalls. He is a member of several organizations, including the Masonic, Elks, Hoo Hoo, etc.; he is also a member of the Engineers' Club of St. Louis, Mo.; of the Mercantile Club of the same city; the Wisconsin Historical Society; the American Economical Association, and other organizations.

Mr. Barns has been editor and manager of The St. Louis Lumberman from its initial number, and has brought that journal to a position of commanding influence as an exponent of the southern lumber trade.

Walter C. Wright of The Lumber Trade Journal of New Orleans (formerly published in Chicago) was born in the city of New York in 1860. His father was a well-known medical man of that city and Brooklyn, who sprang from one of the oldest and best families of Maryland. Walter attended the public schools of New York and Brooklyn, supplementing his education at a private institution until the death of his father, in 1876, soon after which he came west on a visit to friends in Chicago, whence he visited Northern Illinois, and decided to hustle for himself as a farm-hand, where hard work and outdoor exercise developed a robust constitution. After a year or two he engaged in the drug business in Northern Illinois for a time, and, going to Chicago, was for nearly two years engaged in the same occupation in that city. In 1880 he engaged in journalism, taking the business management of The Lumber Trade Journal, recently established by Seward D. Morgan in the interest of the retail lumber dealers association, which had been organized a couple of years before, and of which Mr. Morgan had succeeded W. B. Judson in the secretaryship. Mr. Morgan, after occupying this position, in connection with the publication of The Lumber Trade Journal, for about five years, was succeeded, in 1885, in the secretaryship, by Mr. Wright, whose efforts in building up the association met with marked success. In 1887 Mr. Wright, in connection with George W. Hotchkiss, purchased the franchise and good-will of The Lumber Trade Journal, and, under the editorial management of Mr. Hotchkiss, and business management of Mr. Wright, The Journal achieved a phenomenal success. Mr. Hotchkiss' health failing, the entire charge of The Journal, from about 1889, fell upon Mr. Wright's shoulders, and in 1894 it was removed to New Orleans, where Mr. Wright has succeeded in firmly establishing it as the mouthpiece of the fast developing lumber industry of the south. Since its removal south Mr. Wright has enjoyed the able editorial assistance of Mr. W. G. Boorman, a writer of no mean attainments upon subjects connected with the lumber trade, and The Journal has, under such able management, attained marked success and reputation second only to the high position which it for so long occupied in the northern field—a success largely, if not wholly, due to the excellent business management of Mr. Wright.

One great secret of the success in life which has marked the career of Mr. Wright was in his persistent pursuit of a broadening knowledge of life and men. As a farmer's boy, he was in the habit of taking his book to the fields with him, that every leisure moment might be utilized in the attainment of such knowledge as should be of practical benefit in later years, and with close habits of observation of men and things, it is but natural that each day should bring with it in the maturer life a deeper insight into all that enters into, not alone the individual life, but of those broader things which confronts one as a citizen. Not strange is it that Mr. Wright has made hosts of friends in all parts of the nation, and that under his management The Lumber Trade Journal has attained a position of great influence.

C. D. Strode of The Chicago Hardwood Record was born in Newton county, Indiana, in 1861. He received some education in the public schools at odd times, and was put to hard work as soon as he was big enough to handle a hoe. Later he worked as a laborer in saw mills and as a farm-hand, and entered the newspaper business by getting a job at turning an old-fashioned cylinder press, finally getting into various higher branches of newspaper work, in which he has since continued. In 1895 he started The Chicago Hardwood Record, issuing the first number October 17. In March, 1896, C. V. Kimball became associated with him in the publication, and with The Record on the high road to success in its chosen field, it, in August, 1897, absorbed the publication known as Hardwood, previously mentioned as being published by A. H. Hitchcock and O. S. Wetmore. The Hardwood Record is exclusively devoted to the hardwood interests of the country, and in this department of the trade has achieved a well-merited success.

CHAPTER XLIV.

THE EVOLUTION OF SAW MILL MACHINERY.

THE history of the lumber trade would be incomplete without a reference to the origin and development of the machinery with which the immense industry represented in this volume was made possible.

The saw of the present day is of comparatively recent evolution from the crude instrument made use of in ancient times. When the idea of tools for the separation of logs of timber into shapes and sizes convenient for man's use originated, we have no means of knowing. That some rough tool was used in the most remote ages for separating timber admits of no question. We may imagine that even as far back as Adam possibly, sharp stones driven by a sledge made by tying a heavy boulder to a convenient handle, was employed, and this perhaps gave way to a stone axe, with which the ancients were enabled to prepare the timber for the construction of the rough carts or other needful vehicles or articles entering into the economies of that early period. We may speculate regarding the tools which Noah made use of in the construction of the ark, and we may imagine that Tubal-cain, the first artificer in brass, had such a knowledge of metallurgy, as led him in that early day to construct tools for reducing the forest growth to a condition suited for the use of man. But all this is but speculation, we can not hope ever to arrive at the solution of this problem, any more than we can at the mooted question of where that noted personage obtained his wife.

That the ancient Greeks had knowledge of a serrated instrument, embracing the principles of the saw of later ages is not to be doubted, for Grecian history records that Falus took the jaw-bone of a snake, for want of better material, and constructed an instrument with which to cut wood, and later ages improved upon this idea by the substitution of sharp pieces of flint, or of obsidian, and later of sharks' teeth firmly bound between two pieces of wood. With a better knowledge of iron, sharp pieces were substituted for the less substantial and crude devices, and it is no stretch of the imagination to trace the "inserted" teeth of a remote age to a plate of iron with a serrated edge. All nations and tribes have profited by the example of the beaver and other animals, whose sharp teeth used in the felling of timber, no doubt gave to the mind of man an intimation of the dormant possibilities in a reduction of various articles to shapes and sizes convenient to man's requirements. Ancient paintings at Thebes portray timbers set between upright posts, the sawyer cutting from the top of the log, down to the ground. In the British Museum is to be seen a saw or semblance of a saw found at Thebes, which no doubt did service in days long antedating any promulgated history of the arts and sciences. Hand and frame saws figure in the pictured and historic annals of remote ages, and the earliest saw mill was no doubt a frame set upon legs, or a pit dug in the ground, over which a log was rolled to rest upon skids, the operators being located, one on top, and the other under the log. With a better knowledge of metallurgy, the ancient saws of flint, obsidian, sharks' teeth, etc., gave way to plates of iron, and with increasing knowledge, to plates of steel, but with all improvements, still retaining all of the original principles of the serrated edge.

The early mill, as before remarked, was upon the principle of the pit saw, the log being elevated upon posts or benches or rolled upon skids over a pit. So early as the fourth century crude mills were operated by water power in Germany, and these are of the earliest of which we find record in the Christian era, but were scarcely more advanced in character than were those of the earlier period, and it was not until nearly a thousand years later that inventive genius set about the addition of improvements. In 1332, according to French manuscripts of that period, a saw mill driven by water power, was the wonder of the inhabitants of Augsberg. About 1420, Spaniards erected mills in Madeira, while the history of that period records the wonderful work of saw mills driven by water-power at Breslau in 1427, in Norway in 1520 and in Rome in 1556, and from this time such mills became quite common in many parts of Europe. One of these, operated in the neighborhood of Lyons, France, is described by the Bishop of Ely, an ambassador from the English Queen Mary, to the court of Rome.

> "The saw mill is driven with an upright wheel, and the water that maketh it go, is turned into a narrow trough, which delivereth the same to the wheels. The wheel hath a piece of timber put to the axletree end, like the handle of a broch, and fastened to the end of the saw, which, being turned by the force of the water, hoisteth up and down the saw, that it continually eateth in, and the handle of the same is kept in a rigall of wood from swerving. Also the timber lieth, as it were, upon a ladder, which is brought, by little and little, to the saw with another device."

That the mill even in this early day and in its crude form was the subject of study by inventive minds, is evidenced by the fact that in a history of the 16th century, mention was made of mills where two saws were operated in one gate, the forerunner of the more modern device known as the "gang mill," and this improvement is credited to the locality of Ratisbon on the Danube. A mill of this character was in 1596, credited to Saardam in Holland. In 1663 an attempt was made to operate a saw mill to run by water power in England, but its menace to hand labor, led to such violent opposition on the part of the people who saw (as in these latter days) so much danger of throwing the working people out of the means of earning a livelihood with hand saws, that the project was abandoned. A mill which James Stansfield of Limehouse, East London, established in 1767, to run by wind-mill power, was destroyed by the mob, who saw in it only a device to take the bread out of their children's mouths.

The first saw mill of which we find record in this country is the one mentioned in the earlier chapters of this work, as having been built in 1634, upon the Piscataqua river, near the boundary line between Maine and New Hampshire, and this was soon after succeeded by mills at many convenient points along the coast from Maine to Virginia, while with the increasing settlement of the interior of the continent, mills rapidly increased at many points inland, along the banks of the Connecticut river, and westward throughout Canada, all being of the primitive type of the German and French mills of the earlier period.

The original mills were built at the foot of rapids, where a rough pile of stones, forming a wing dam, turned the rapid current into a smaller channel, which impinged upon the wings of a "flutter wheel" attached to a shaft, upon the inner end of which was a crank, to which was attached a pitman, connecting with the lower bar of a gate, in which was stretched the saw. This gate was held between two upright posts resting upon a heavy beam of timber and surmounted by a "fender" beam of ponderous size. Ribbons of hard maple were spiked, or trenailed, upon the inner surface of the posts, as slides upon which the ponderous gate was held in place as it rose and fell with each revolution of the water wheel. Upon the floor of the mill, which was usually located upon the high banks of the stream in such wise as to bring the floor on a level with the top of the bank, over which logs could be rolled into the mill, the carriage was located. Upon the heavy timbers which supported the floor, two lines of hard maple ribbon formed the track upon which the carriage slid back and forth on its well greased surface. The carriage was constructed of two long timbers placed five or six feet apart, and held together by huge "head blocks" of oak a foot in thickness by a width of three feet on the "head" block, and two feet on the "tail block," the latter being securely trenailed or iron bolted to the side timbers, while the head block was movable upon the ways, to accommodate the different lengths of logs. The log was held in place upon the carriage by two single dogs at the head end and a "bail" dog at the tail end.

The head block was recessed sufficiently to allow the saw to recede beyond the edge of the block upon which the end of the log was to rest, while in order to prevent "cutting the dog in two" at the tail end the saw was not permitted to quite reach the block, a trip being provided upon the "finger feed" and ratchet, to stop the saw at about four inches from the end of the log. The feed works consisted of a ratchet wheel, which a heavy finger bar, pushed forward notch by notch, its shaft in turning operating a pinion, which meshed into a toothed rack on the under side of the carriage arms, carrying the carriage forward to the saw. This finger bar in its operation gave inspiration in more recent years to an invention of which we shall take occasion to speak later, known as the "nigger."

By reason of not allowing the saw to travel to the extreme end of the log, each cut was necessarily forced from its fellow, leaving upon its end a "stub shot," or split and rough surface, which was removed by an adze or axe, but as this in many cases rendered the board to that extent unfit for use, logs were cut four inches longer than the length desired, a practice which was kept up for many years after modern improvements rendered it unnecessary, by reason of "sawing through," as in the circular, band and gang, while it is yet continued to the extent of from one to two inches not less to secure a full length of board, than to enable the trimmer of modern times to square the ends, which perhaps may be out of square as the log comes from the hands of the cross cutters in the forest. When timber was so plentiful as to suggest no reason for economy in its cutting and manufacture, a waste of four to six per cent in excessive length of logs was but little considered, while the growing scarcity of later years has induced an economy in every branch of the manufacture.

The mills of the early day, while a marvel of speed and efficiency to the people of that period, have long been a subject of mirth as their slow action has been contrasted with that of the speed of modern mills. With the earliest mills a product equalling five hundred feet of one-inch boards was considered excellent, even marvelous work for one or even two men working from sunrise until sunset. The timber was large and one log per day was a good "stint." The mill was usually operated by but one man, who perchance had help in the morning to roll the log upon the carriage and was left to operate alone until night-fall. "Spotting" one end of the log to procure a flat surface to rest upon the tail block and to maintain a steady position, the other end was "rossed" (bark removed) to lessen the friction upon the head block. Timber being plenty, and of little value, a liberal slab, as heavy as a man could drag out of the mill and pitch into the pile below, was cut from the outside and the log set up for the next cut, the sawyer having only the correctness of his own judgment, and the marks of the dog in the log to guide him in setting to the required thickness. It was no unusual thing for the sawyer to lie down and take a nap, or to take his meal, while the saw traversed the cut, depending in the first instance upon the cessation of noise, when the trip threw the finger from the ratchet, and the saw ceased cutting into the timber, to awaken him. Having taken as much as was desired from one side of the log, he with his heavy crowbar "set the log over," so as to begin the process of removing the slab on the opposite side, continuing to take off boards until the log was ready to "turn down," upon its now flattened sides, which was done at first by the crowbar or hand spikes, and later with "cant hooks" made for the purpose of rolling logs, and which consisted of an iron hook secured to a strong handle of hickory, a device giving great leverage to the operator.

The lumber taken from the sides was rough edged, and upon turning down the log the sawyer proceeded

A Tracy Gay

to pile the pieces upon the flat surface now presented, taking care to place them so that the cut of the saw would remove the bark and "wane" from the edge of each piece, and one edge being thus squared, the boards were turned over so as to bring the other rough edge into place for a repetition of the process, during which the sawyer sat upon the top of the pile to keep them in place.

Among the first improvements to be added upon the mill floor, but one which was practically unknown until about 1825, was a table at the side of the mill which was fitted with a small rotary saw, the board being laid upon the table, which slid upon maple ribbons, the board to be edged being pushed against the saw, until one edge was squared, when the table was pulled back, the board turned over, and the operation repeated, the mounting of the "edging table" upon small iron rollers running upon a V-shaped iron track, and thus reducing friction, was considered one of the most useful additions to the machinery of the saw mill which could be devised, and in this improved form the edging table continued in use until 1863, when "double" or "gang" edgers, of which we shall speak later were introduced. In the use of the table edger, but little attention was paid to a paralleling in width of the two ends of a board; until about 1840, little or no machinery was employed in the dressing or manipulation of lumber, and the carpenter ripped out his flooring, casings, mouldings, etc., by hand, and it mattered little that one end of a board was wider than the other, the taper strip was utilized in smaller work, and as lumber was measured at one third of the distance from the narrowest end in ascertaining its contents in feet, tapering boards were not objectionable, especially in the better grades of lumber.

With an advancing demand for lumber, the building of dams and the substitution of "overshot" and "undershot" wheels and the introduction of steam as a motive power and greater stability and character to the mills, it was but natural that inventive genius should try the experiment of placing two saws instead of one in the saw gate, thus securing two boards in the time and with but little increase in the labor of securing one, and the success of this experiment led in some instances to placing two saws on each side of the gate, thus cutting from both sides of the log at the same time, and thus originated what was known as the "slabbing gang," which was first introduced in the saw mills of Maine, and in their success gave rise to the further addition of enough saws, or from thirty to sixty in number, to fill the gate, and the "gang" long known as the "Yankee gang," became an important adjunct to the manufacture of lumber in all large mills. The slabbing gang was for a time confined to simply slabbing, and taking one cut from each side of a log, which was then turned over to the "stock gang" or the sash saw, to be cut up, or to the "siding" machine, which, about 1840, became a favorite, operated as it was by a small rotary saw, and self-setting carriage, which required but little attention from the operator in its process of dropping the lumber automatically, while the sawyer operated the main saw of the mill. The advantage of the gangs of different patterns lay in the fact that the lumber turned out was of parallel width and practically uniform thickness, and could be manufactured with thinner saws, while of much greater acceptance in the market, and being smoother, entailed less labor on the part of the carpenter, and, a no small consideration, enabled a larger output per day for the mill.

As in the earlier introduction of steam power, to the mechanic arts, the small engines which were available did not yield as much power as could be obtained from nature's gift of water, improvements in saw mills were largely confined to better adaptations in water wheels, and the simpler contrivances of earlier days were superseded by large overshot or undershot wheels to which the water was conveyed in flumes in such wise as to secure the greatest amount of power, from a given fall, and this led to improvements, which by the introduction of the turbine principle, dispensed with ponderous machinery and secured greater efficiency. But water power was not available at all points where it was desirable to build a mill, and the hauling of so bulky a substance as lumber, for long distances from market or the damage it received by being rafted, led to the introduction of steam as a motive power, which could be applied to saw mills which could be located at the mouth of a river, down which the logs could be floated, and from the harbors of which vessels could be utilized in its carriage to distant markets. The first adaptation of steam to this end was about 1825 to 1830, at which early date we first begin to learn of them. The steam mills of this period, however, were little changed in their general character or machinery from the water mills, and as the engines were almost universally of but a few horse-power calibre, and their boilers of the crudest type, it was a good mill which exceeded a cut of from two to three thousand feet per day. As late as 1850, it was unusual to find an engine of more than ten-inch bore and twelve to sixteen-inch stroke, while those of six-inch bore were by far the most common in the saw mill world, and these were usually attached direct to the pitman of the gate or mulay mill, which shortly before this date had been introduced to supersede the ponderous gate. The introduction of the mulay saw was a great advance in the improvement of saw mill machinery, dispensing as it did with the great weight involved in a gate constructed of a head and foot piece and side arms of size and strength sufficient to stand the strain of pulling a saw through a heavy cut, and demanding a large proportion of the power developed by the water wheel or steam engine, to overcome the friction of its wooden or iron slides. The mulay dispensed with nearly all of this superfluous weight, the lower end of the saw being attached to the pitman by a "noddle pin" held by a comparatively light "stirrup" or iron frame running in smooth iron slides with a minimum of friction; the upper end of the saw blade was attached in a similar manner, the slides being bolted to the fender beam, and the weight of a heavy gate being dispensed with, the driving power was utilized to its fullest extent, and the cutting ability of the saw greatly increased, so that a mill formerly capable of cutting two thousand feet per day, was now able to cut four to five thousand feet.

With the rapid growth of the country, and increasing emigration to the treeless prairies of the west, the demand for lumber so rapidly increased, that the old-fashioned gate and mulay mills were unable to supply the wants of the nation, and about 1850 the circular or rotary saw was introduced. Round saws of small size had long been in use in various manufactures of the world, but were not supposed to be available for use in the cutting up of round logs. The circular saw siding mill so often referred to in these pages as in use in many mills, was adapted only for sawing "cants," prepared by the upright saw, and operated saws of but two or three feet in diameter, but about 1850, circular saws of five feet or five and a half feet diameter, were introduced, and rapidly grew in public favor because of their ability to turn out much larger quantities of lumber per day, albeit for the first few years so little was known as to the proper method of dressing and handling such saws, that their product more nearly resembled wash boards than lumber. These saws upon their first introduction were made heavy and thick, and it was popularly supposed necessary that they should cut a full half-inch kerf, to avoid heating, and find ample clearance in their passage through a log. To operate them a new form of carriage and set works became a necessity, the old form being wholly discarded. The first carriages ran upon ribbons of maple, as in the upright mill, but the old bail dogs and head blocks gave way to a platform carriage containing iron blocks upon which the log was rolled from the side, and with leverage set works, combining the principle of rack and pinion, the log was moved by a graduated scale so as to present the side of the log to the saw, the lumber dropping off at the rear of the saw frame, leaving no rough stub shot; the sliding track giving way to wheels upon iron axles, running upon a carefully planed iron track, reducing friction to a minimum.

To operate a circular mill much larger engines or increased water-power was necessary, and engine builders were not slow to adopt patterns to sizes requisite, until, at the present day, engines of three and four hundred horse-power, backed with batteries of as high as eight or twelve tubular boilers, twelve to twenty feet in length by five or six feet diameter, are not uncommon in the operation of a modern saw mill, contrasting strongly with the thirty foot in length by twenty inches or two feet diameter boilers of a past day, some of which were plain cylinders, the flame passing under them to a chimney, while others had a large flue in the center, through which the fire returned from the rear to find exit through an iron breeching in front, to the smokestack or chimney.

The capacity of a circular saw was popularly supposed to be limited to the cutting of about one thousand feet per hour, and this quantity taxed the ability of the edging table to its fullest extent. In 1863 the writer was invited to see a test, in which a small wager was laid by a mill owner at Saginaw City, Michigan, that his circular saw could turn out 2,000 feet per hour, and, to the surprise of the large company which had assembled to witness his discomfiture, more than 4,000 feet of unedged boards encumbered the mill, as the result of the hour's work. This led to a realization of the fact that the capacity of the circular saw was limited only to an ability to edge, and otherwise take care of the product. Inventive genius soon solved the problem of edging, in the production of a machine which would trim both edges of a board in its passage to the rear of the mill, leaving it parallel in width at both ends. This was accomplished through one fixed and one movable saw upon a shaft, the man in charge, by means of a lever operated by hand or from the knee, moving the one saw to and fro upon the arbor as the circumstances and varying widths of boards demanded. This machine has passed through various stages of improvement, until it to-day includes a gang of several movable saws, adapted to trimming the edge, or splitting the board into several widths, and in its heavier form is used for cutting a cant into scantling, or even a four or six-inch cant into one-inch boards, thus greatly increasing the product of the mill.

With an ability to properly edge and care for a largely increased output, other improvements became a necessity, and a more rapid propulsion of the log carriage was found in the substitution of a rope feed in place of the friction which had superseded the finger feed of the upright carriage. In this device a rope from each end of the mill carriage was passed to a drum beneath the floor, around which several turns were taken and the feeding to the saw or "gigging" back of the log greatly increased in rapidity. But soon this was found too slow, and from the constant stretching of the rope, too uncertain, and now steam feed was introduced by placing a long cylinder upon the floor under the carriage, to which a piston rod attached to the carriage operated upon the principle of an elongated steam engine, and this has proved the acme of improvement in this line to such extent that as high as 250,000 feet of lumber has been turned out by one circular saw in a day of ten hours, and the capacity of a circular was practically ascertained.

But, with a vastly increased capacity for sawing, more expeditious methods of handling the logs must be sought, and among these we must name the dogs for securing the log to the head blocks, better means for expeditiously rolling and turning the log, and, as well, more expeditious methods of getting logs into the mill from the boom or pond in which they were stored.

About 1868-9 the steam "nigger" was introduced; this was, in its original form, a heavy wooden bar having iron teeth a few inches apart, which was located about midway of the length of the log deck, and when at rest sank beneath the floor at the foot of the log deck. At the lower end a heavy chain was attached, which the sawyer, at his pleasure, caused to be wound upon a drum or shaft, raising the "nigger" through the floor with a slight tilting motion, which brought the iron teeth in contact with the log in such wise as to roll the log into proper position on the head blocks, as was required, thus doing by machinery the heavy work hitherto performed by cant hook or lever, and greatly expediting the work, while lessening the strain upon the operatives. Previous to its introduction, a chain device, with heavy iron hook, had been employed, this being operated from a sheave above the carriage, which, while effective, was much slower, and involved the handling of the chain and hook, while the "nigger" was automatic in its action under control of the sawyer.

The "nigger," as originally designed, has given way to improvements of a character greatly to add to its efficiency, while the original principle is retained.

But, with increased facilities for cutting up the logs, a necessity arose for more expeditious methods of clearing the saw of the lumber, hitherto removed by manual labor, but which was now dropping at the rate of a board every two or three seconds, and a series of live rolls was placed upon the floor at the rear of the saw, upon which the lumber, as it dropped, was automatically carried to the edger, the cut-off, or the trimmer, of which we shall speak later. These rolls were driven by a chain, which connected them in such manner as to act as a continuous carrier, and in their use the services of several men as "off bearers" was dispensed with.

The waste in sawdust of a log cut by the circular was a most important item, especially in the heavy loss which it entailed in the cutting of the better class of logs. This loss was deeply appreciated by thinking men even long before a scarcity of timber made it advisable to seek the use of thinner saws, which, while thought impracticable in the earlier days of the introduction of the rotary, engaged much attention as trade developed, with the result that from a four-gauge, or half-inch saw kerf, saws of eight-gauge (wire standard) became popular, and ten and twelve-gauge, taking scarcely more than a quarter-inch kerf, were soon not uncommon. But, with a growing appreciation of the rapid disappearance of the forests of white pine, attention was turned to still more economical devices, not only in the machinery of the saw mill, but in the saws.

Band mills, or mills operating a continuous upright saw, were a dream as early as 1858, about which time James J. McCormick of Bay City, Michigan, proprietor of a mulay saw mill, experimented with a device which embodied the principle of the band saw, but which proved a lamentable failure from the crudity of its arrangement and faulty manner of its construction, the "buckling" resulting from the passage of a long band of steel, twelve inches in width, over a number of small pulleys being greater than the tenacity of the blade could permit. But one board was produced before the saw broke in two, and as it had been made to order in France, and could not be replaced in this country, the experiment was abandoned, and the saw for many years ornamented the picket fence in front of the McCormick residence.

Up to about this period the art of saw-making had made little progress in America, and nearly, or quite all, the saws in use were obtained from the workshops of England and France.

But that "there is nothing new under the sun" is forcibly illustrated in the history and evolution both of the rotary and the band saw, the principles of which were in a crude form made known to the world long before their adaptations to practical work in this country.

In the archives of the British Patent office (1777) we find the first suggestion looking to the use of a circular saw, which, while no doubt confined to the smaller manufactures, yet was the forerunner of the more practical devices of a later day.

BRITISH PATENT NO. 1152.

To Samuel Miller of Southampton,
Sail Maker, etc.

Now know ye, that in compliance with the said proviso, I, the said Samuel Miller, do hereby declare that my new invention of an entirely new machine for the more expeditiously sawing all kinds of wood, stone and ivory, is described in the manner following (that is to say):

The machine that gives the power, a horizontal windmill. The shaft of this mill stands vertical with four levers fixed to it at right angles with the shaft, to which levers are fixed the sails. These sails when in motion are one half of their time horizontal, the other vertical. The upright shaft being in motion, communicates its power to a horizontal shaft. This shaft hath a large wheel to it, round which goes a rope or chain, which is continued to a smaller; through the small wheel goes a square bar of iron, that receives the saws, which are a circular figure. Those saws being in motion the matter or substance they are to cut, is brought forward as follows: The horizontal shaft, as mentioned before, hath a small wheel on it, with a groove to receive a weight; the rope is continued to a smaller, that hath a pinion to it, connected to a straight bar under the chariot, which hath teeth to match the pinion; the chariot moves in a groove likewise on a center; it hath two motions, one to advance forward, and the other sideways, which is performed by a screw annexed to the end of the chariot. This screw is turned by hand to direct the pieces against the saws, agreeable to any line wanted to be cut.

In witness whereof, I, the said Samuel Miller, have hereunto set my hand and seal this Fifth day of August, one thousand seven hundred and seventy-seven.

[Signed] SAMUEL MILLER, (L. S.)

William Newberry of London conceived the idea of a band mill so early as 1808, in which year he secured a patent for a device embodying all the general principles of the band mill of to-day, as was seen from a cut which displayed its crude details. This band was evidently intended for larger work in logs, smaller, "ribbon," saws, having been in use for many years previous to 1808, both in England and France for the manipulation of ivory and small manufactures of wood.

The attention of the American public was first called to the band mill by an exhibition made at the centennial exposition at Philadelphia, in 1876, by J. C. Hoffman of Fort Wayne, Indiana, who there exhibited a mill which he subsequently removed to Fort Wayne, where it has since been in operation in the sawing of hardwood timber. The operation of this mill at the centennial, erected as it was in but a temporary manner and without permanent foundation, was not of a satisfactory nature sufficient to encourage a general acceptance by lumber manufacturers, but it served to awaken thought, and its subsequent successful operation led the manufacturers of saw mill machinery to closer investigation and experiment until, in or about 1884, so great were the improvements and manifest advantages in the saving of timber, the product of a log being fully twenty per cent greater than by circular sawing, that the band saw speedily won its way to public favor and is now the recognized favorite method of manufacturing lumber, and has superseded the circular, and largely the gang, in a majority of the larger mills of the country.

While gangs have already been mentioned, it will not be out of place to speak more extendedly regarding them. Gangs were first used in Maine, and, as before remarked, originated in the experiment of straining a second saw in the old-fashioned gate. This being found practical in operation, other saws were added, until as many as sixty very light blades were arranged side by side and an entire log was cut in its single passage over the track; such gangs were known as "live gangs." While from the thinness of the saws much good timber was saved, the labor of edging the increased production with the crude methods of the day was greatly increased, and the mills adopted the principle of siding down the logs with the sash or later the mulay, and still later the circular, and then turning the flatted log to a gang, which was provided with short and thin saws, the product from which was left of uniform width and mainly squared edges: such a gang was termed a "stock gang." Another form of gang was known as a "slabbing gang," and in this the log was passed through two or three saws on each side, which removed the slabs and one or two boards, and the resultant "stock" or "cant" was turned down, to return through a stock gang of many saws set in the reverse order, in the same wide gate which sawed it into boards, thus passing the rough log and a flatted cant or stock in opposite directions at the same time.

Until about 1835 the only style of mill known to the saw mill world was that of the "gate" or "sash" as variously termed. This, as elsewhere mentioned, was constructed with a heavy weigh beam across the mill, supported in its center by two heavy posts placed about six feet apart, upon which strips of maple formed slides for the ponderous gate, which was constructed with a top and bottom timber, connected by lighter posts, the upper and lower cross beams sliding by V-shaped notches of wood (or iron) on the maple strips of the side posts. The gate was connected at the bottom by a "noddle" pin connecting with the pitman to the water wheel shaft below, and the saw was strained between the upper and lower cross beams. The weight of this gate absorbed a large proportion of the power of the water wheel, and to that extent absorbed the ability or cutting capacity of the saw.

In 1835 Israel Johnson of Clear Pond, Essex county, N. Y., conceived the idea of dispensing with the heavy gate, by suspending two iron slides from the upper, or "fender" beam, in which by a short noddle pin two sliding boxes and rocking plates were connected with the saw at its upper end, while a similar arrangement at the lower end of the saw was connected with the pitman, and by this simple arrangement the weight of a heavy gate was dispensed with, and as the "horns" or side posts, as well as cross beams, were done away with, the old farmer adopted the nomenclature of "mulay," signifying "hornless." It is said that the mill force of Mr. Johnson, consisted of a bull for hauling on logs, his young son and a small daughter being his assistants on the floor. Probably the bull having no horns gave Mr. Johnson his first idea of the name for his innovation in saw mill construction. It is related of him by an acquaintance and neighbor, Mr. Phelps of Davenport, Iowa, that he built the mill with the aid of his boy, girl and bull, that the frame was put together with trenails and dove tails locked with wooden wedges, and that with a production of 1,000 feet per day, his slabs accumulated faster than his lumber pile, so that when the slab pile became too great for comfort and convenience, he moved the mill to another location and burned the old slab pile, when it had seasoned well enough to burn, moving back to his first location, when the second slab pile had reached a size to necessitate it, he having two dams located near by on the same stream. The mulay was at once appreciated as a useful innovation and it is said that Mr. Johnson soon after testing its utility made a journey to Washington to secure a patent, where he fell in with some disinterested (?) friends, who, after dining and wining him, secured his signature to an assignment of his claims and the loss of the benefits which should have accrued to him from the invention. Mr. Johnson is described as a genius of the first water, and as being as eccentric a man as is often found. He was a soldier of the war of 1812 and saw service at the battle of Plattsburg, N. Y. After the war it was no uncommon thing for him to appear at the Phelps grist mill with a bag of grain on his "drag," which was made of two (sometimes three) small poles, one end of which dragged on the ground after the fashion of the Indians, or later with a two-wheel cart, made by sawing off a six-inch block from a good sound log of three feet diameter, attached on a wooden axle, his team consisting of a cow and a bull yoked together. Being a loquacious man, and knowing every settler in the region, it was a fixed habit to stop and chat with every man he met on his seven-mile journey from his home to the mill. As described to the historian, Mr. Johnson was a typical Yankee, of the resourceful kind, often caricatured but seldom seen in later days; the type of men who have made the term "Yankee," the synonym of invention and ready resource.

Among the more recent devices for the economical manufacture of lumber may be named the "trimmer," a machine of character similar to the gang edger if reversed in its operation, being a long table, usually set at an incline upwards and as long as the length of lumber which the mill was expected to handle. The lumber, on leaving the gang edger, now takes a side motion over the trimmer, which is provided with saws which are set two and four feet apart, and are hung upon receding frames or

A A Carpenter

arbors, leaving the saws wholly under the table, but under the control of the operator, who, on touching the proper lever, causes one or more saws to show its periphery above the table, and the board, being carried upon chains at right angles, is trimmed at the ends, or cut off at a defective point. All first-class mills now use these trimmers to secure uniformity in the lengths of the lumber, and to remove all superfluous ends, the weight of which would increase the cost of transportation. Various other economical devices have served to add still more to the many mechanical means for the more ready manufacture of lumber. The mills of the early century were all run by water-power and their cut was restricted, the slabs taken from the log were a great encumbrance and were usually thrown out of the tail of the mill in a great entangled mass, which had to be hauled away for burning, except in cases where they could be thrown into the stream and floated away. Timber was cheap, and only the best lumber wanted, consequently large slabs were taken, the sooner to reach the only part of the log which was considered of value, and vast quantities of good lumber were thus wasted. With a better class of building, lath for plaster walls was needed, and machines were introduced for their manufacture from the worthless slabs, and soon the supply of lath exceeded the demand, until increased demand for lumber equalized production and consumption, and in later years, with the use of these saws, and a diminishing log supply, enforced economies of manufacture have led to so "skimming" the log that but a small proportion of the slabs are large enough for lath manufacture. The earlier lath in use by builders was found in the cutting of the shaky part of a log into one-half-inch thickness of the ordinary width of the stock; these were checked with an axe until they could be spread to double the original width in nailing upon the studding. With the introduction of lath machines the slab was first cut into lengths of four feet and bolted to a thickness of one and a half inches, which were then sawed into lath of three-eighths of an inch thick by one and a half inches in width, four feet in length.

With the introduction of steam in the running of saw mills, slabs became of value as fuel, and ere long the sawdust was also thus employed; but with the introduction of the band mill, the sawdust was found to be too fine for use as fuel, as were the thin slabs and narrow edgings. To obviate this, "hogs" are now used in all large mills, which grind the slabs and edgings to chips, and this giving character to the sawdust from the band and gang, makes an excellent fuel. The "hog" may be likened to a bark mill for grinding tan bark, except that its revolving cone carries sharp knives for cutting up the edgings.

Shingle manufacture has evoluted from the use of the froe and draw shave, in the preparation of "breasted" shingles, to the steamed block and cut shingle, which gave way in its turn to rough and cheap devices for sawing, which, in their evolution through various forms and arrangements, have been improved to an automatic machine of one or two horizontal saws, in a frame, upon which six, to as many as twenty, shingle blocks revolving, a manufacture of as high as 300,000 shingles per day has been reached on one machine.

Logs were formerly handled with hand spikes cut in the woods and used as levers; these were succeeded by the "cant hook," which was an iron hook fastened to a hand spike, which afforded great leverage in the rolling of a log, but was too slow and required too great manual strength for the quick and economical methods of modern lumber manufacture, and the steam nigger, already described, took its place; this, also, in its original form, was inadequate to the increasing demands, and has been greatly improved in its style, and efficiency of work, and has been supplemented by a similar device known as the "kicker," which, placed on or under the log deck, rises through the floor, under the influence of a lever in the hands of the sawyer, and "kicks" the log forward upon the carriage, and under the influence of the nigger and having "loaded" its log, remains as a blocking to hold the next log upon the skids until it in its turn is wanted.

The old system of hauling logs from the pond or yard up an inclined plane or "log jack" to the mill floor, which is no longer on a level with the ground, but upon the upper story of the mill, has evoluted from a rope wound upon a large wheel, to a continuous chain working in a trough, its permanent teeth operating to bring a continuous stream of logs upon the log deck, where, in place of a man-power to roll them to the skids, another "kicker" throws them toward the saw.

Formerly, as the board dropped from the saw, it was carried off bodily by the "off bearers;" in present methods it drops upon a series of live rolls which rapidly carry it to the double edger, where one man does the work which two could hardly perform before. Leaving the edger, where in one passage the two rough edges are removed and the board left parallel in its width at both ends, it is directed to the carrier chains, which take it to the trimmer, or, at the pleasure of the operator, is thrown upon a system of live rolls which carry it to the trucks, upon which it is wheeled to the piling ground, the edgings and useless boards going to the slab saw, which cuts them into four-foot lengths, dropping them into a trough in which is a carrier chain; here operatives select such as will do for lath, and the worthless material passes on to the "hog" for grinding, or to carts for removing them to a yard, where they are piled for fuel or for sale as fire-wood.

Thus everything about a mill has evoluted from hand methods of handling to machine manipulation, and the old mill of a few hundred feet per day is superseded by a system in which there is a minimum of hand labor. In the earlier days of sawing shingles, the round log was cut into the proper length for a sixteen or eighteen-inch shingle, and a better class of logs was employed in the manufacture; while vast quantities of timber, too defective to be profitable in lumber, was thrown out of the saw mill into the slab pile. In modern manufacture this defective timber is cut into four or six-inch cants and thrown to a bolting saw, which cuts it into proper lengths, whence it goes to the shingle machine and is cut into shingles, the sound timber being utilized and the worthless discarded, and by this means a great saving is effected in this otherwise worthless material.

With the rapid development of the demand for, and manufacture of, lumber, as portrayed in this history, machine shops became a necessity in all sections of the lumber-producing territory, and many of these, from about 1860, were devoted wholly, or in the main, to the manufacture of mill machinery, eagerly striving, one with the other, to produce new and improved devices for the more economical and labor-saving devices adapted to lumber manufacture, and in many sections of the country these manufactories assumed vast proportions, and many of them rank among the largest industrial enterprises of the country, while in all extensive manufacturing centers a machine shop for making repairs to mills has become an absolute necessity.

Up to about 1840 all, or a majority of, the saws used in this country were imported, first from France and later from England, but from about that date the improved conditions of our own land have, with a constant advance and improvement in quality, led to the manufacture of saw blades of surpassing excellence, which have not only superseded those of foreign make, but, to a large extent, are in demand in the countries to which the United States formerly looked for its supplies of this necessary article, and the manufacture of upright, circular and band saws, as well as of cross-cut and hand saws, gives employ to a large number of factories and a vast army of operatives.

Until about 1840 the manipulation of lumber in the building arts was wholly by hand, in its preparation for all the purposes in which lumber is employed. About that time a crude machine, running a horizontal knife rapidly revolving over the surface of the board, was introduced, greatly to the advantage of the operative, whose labor was reduced to the operation of only the smoothing plane. This machine has since lost its crudity in highly finished machines, in which lumber is finished to but a minimum of waste in removing the surface, which is left in a highly polished condition, ready for immediate use in any work for which it is specially prepared, in flooring, siding, moulding or any special shape required in the building art, and the laborious hand labor of the carpenter is almost wholly done away with, his kit of tools being practically reduced to the hammer and saw, the square and the smoothing plane, while doors, sash, floors and moulding are all the product of machinery. The planing machine is found also of vast utility as an adjunct to the saw mill in all railroad sections, enabling the removal of the surface, and the shipment of lumber in condition ready for immediate use, with the saving of a large percentage of the weight upon which railroad freights are imposed, the lumber reaching the retail dealer in a condition which is highly satisfactory to his customers.

It would be impossible to enter into full details of all the improvements which have accompanied the evolution of the saw mill during the past fifty years, from the mill of but a few thousand feet capacity to those whose manufacture reaches from 50,000 to 300,000 feet daily. Electricity has played a by no means unimportant part, and there are but few of the larger mills which do not include electric lighting in place of oil torches, which were formerly used on dark days and for night work. Engines of from 100 to 1,000 horse-power have superseded the limited power of the old flutter wheel driven by water, and the engines of from ten to forty horse-power which succeeded them, while the dealer whose vast business of a half-century ago comprised sales of but 1,000,000 feet in a year, is succeeded by those to whom 50,000,000 feet is but ordinary, and others whose handlings reach to 150,000,000 feet or more annually.

No less notable have been the changes of methods in the woods in getting out of log stock. Where, originally, in large operations, the camps were stocked in the fall with salt meats, and coarser articles of food, such as could be transported over long tote roads, and kept over winter, the development of the country, through the building of railroads into all sections of the forest, have transformed the rough fare to that equaling, if not exceeding, the cuisine of a good country hotel, to which fresh meats and vegetables are available on a day's notice; chopping with axes is largely superseded by the sawing down of the timber; ox teams have given way to horse teams, in which only the larger and more hardy animals are used, many teams being valued as high as $800 to $1,000; while hauling for long distances to a banking ground has given way to railroads extending into the most remote forests, and delivering the log stock either direct in the mill yard, or dropping it into available waters for floating to distant points; while in many instances a wire rope transfer system saves horse-power in the skidding of the logs and loading them upon the cars. Machinery has in this department revolutionized old and crude methods to almost as great extent as in the matter of saw mill machinery; and could the deceased lumbermen of fifty years ago arise from their graves, they would find themselves wholly at sea as they contemplated present improved and easy methods of logging and drew contrasts with the laborious methods with which they were acquainted in the by-gone times. So, also, with the mechanic of that period, who, with saw and jack plane, laboriously brought his material to a suitable condition, as he witnessed the work of the modern planing mill, which practically leaves a carpenter only the use of a hammer with which to secure the material in place; and even the old cut nail, or the still older one wrought by hand on the anvil, has practically disappeared, being replaced by the modern steel nail, which Yankee ingenuity has adopted as an improvement upon the methods of our competitors in Germany.

CHAPTER XLV.—CHICAGO.

ITS IMPORTANCE AS A DISTRIBUTING POINT FOR THE LUMBER OF MICHIGAN AND WISCONSIN, WITH STATISTICS OF RECEIPTS AND SHIPMENTS.

THE history of the lumber trade of Chicago is the history of the great northwest. The boundless prairies upon which vegetation was confined to prairie grasses, with but here and there a stunted clump of forest growth, presented none of those native facilities for the erection of necessary dwellings and outbuildings which were requisite for their settlement and upbuilding. For many years the development of the country west of the Great Lakes was practically confined to the neighborhood of water-courses, along or contiguous to which was to be found some small timber available for log dwellings, or to supply stock for the small saw mills which were a necessity for the few hardy settlers, who, while living in log cabins or earthen dug-outs, must needs have more or less lumber for the floors of their dwellings, or the doors of their dug-outs when sawed lumber was available. In just such proportions as facilities presented for building comfortable dwellings, did settlements increase, canals and railroads add to the facilities of transportation, and the broad prairies develop into well tilled farms, dotted with villages and cities, marking not only the centers of the greatest grain-producing districts of the world, but of the most progressive and highly cultivated people. But for a lumber industry at great distributing centers, assuring the thrifty but poverty-stricken settler from the east, or immigrant from other lands, that whatever other privations he might be called to endure, facilities existed for the building of a cheap but comfortable dwelling, in which to enjoy the products of the hard labor out of which the surrounding wilderness was to be made to blossom as the rose, there was nothing to invite him to undergo hardship and privation.

Up to the year 1836 or 1840 the settlement of the west was greatly hampered, and in fact greatly neglected. The home spirit of New England led to contentment under the old roof-tree, and the spirit of adventure found its manifestations on the ocean rather than in delving into the secrets of that great expanse known only from the reports of early explorers, and only as the Great American Desert, inhabited alone (as it truly was) by roving bands of warlike savages, prepared at every point to contest the advance of the white man, and to resist the planting of the white man's civilization, which experience had already taught them meant to them only extermination. The settlement of New Connecticut on the Western Reserve, Ohio, which practically dated from about 1826 or 1830, was but the pushing farther of the outposts which were the result of the emigration from New England into the central and western portions of New York and Pennsylvania. While a few small settlements dotted the banks of the Mississippi from St. Louis to New Orleans, the Upper Mississippi and the country west of it were practically unknown except as Indian lands, and he was indeed a hardy and daring pioneer who ventured as far west as the Great Lakes, and small indeed the chances of the adventurer who sought to penetrate the region beyond.

With the advent first of the saw mills of Michigan and eastern Wisconsin, combined with the lumber yards of Chicago, and the subsequent building of saw mills on the banks of the Mississippi and Wisconsin rivers for the manufacture of the logs and timber floated down from the forests of Wisconsin and Minnesota, has come a mighty civilization, ever increasing in volume, demanding each day some increased and improved system of transportation, for the conveyance of the vast products of the farm to an eastern and foreign market, no less than of building material and the comforts of life to a happy and contented people who have brought luxury out of privation and built mighty cities where but the smoke of the Indian tepee had ascended. To Chicago more largely than any other locality or influence is this great change ascribable. Located in a position more readily accessible as a focusing point for the vast region beyond than any other, it possessed superior advantages for the concentration of the products of the country lying east of it, even to the great ocean which borders our eastern coast. Located near the foot of Lake Michigan, around or across which all travel must pass, it was the natural western terminus of that great water-course built by the State of New York, the Erie Canal, via Lakes Erie, Huron and Michigan, and with the introduction of steamboats to take the place of sailing vessels, the tedious, and ofttimes dangerous transit by stage was overcome, although the actual distance was nearly doubled, while in later years the locomotive has annihilated distance and danger.

The advantages of Chicago as a central trading post were recognized as early as 1798, when John Jacob Astor established the American Fur Company on the spot which was afterward selected as the site of Fort Dearborn, more readily recognized at the present time as the junction of River street and South Water street.

Here log cabins were built and trade carried on with the Indians, and the few hardy white men, mostly French half-breeds, who as hunters and trappers were the camp followers of the American Fur Company, until the massacre of 1812 scattered the little band, which henceforth was more nomadic than settled, unless we except the garrison, which, having built Fort Dearborn, remained, less to protect the few settlers than as a menace to any ill-advised attempts to secure British possession of the great northwest territories.

Up to 1830 but few people were attracted to this section, only the more hardy and adventurous braving the dangers of the journey in open wagon, involving pedestrianism for a great portion of the way, or the scarcely less feared perils of rough and tempestuous lakes in small and uncomfortable vessels. But about this time the spirit of adventure began to have an abnormal development, and young men from the east began to exhibit those evidences of unrest and push which has made the name of "Yankee" synonymous with enterprise, investigation and improvement. In 1833 probably 300 souls had gathered at the mouth of the sluggish stream which wound its tortuous way to what is now Rush Street bridge, then turning south, emptied into the lake, at what is now the foot of Madison street. In 1832 a postoffice was established, and for the first time a weekly mail, brought in on horseback, gave encouragement to those already here to expect not only greater personal freedom from the discomforts of frontier life, but a rapid increase in population, an expectation which was speedily realized to an extent that the most optimistic had not dreamed.

Chicago was at that time fairly wooded, the north side of the river being a sparse forest of elm, oak, cottonwood and a few scrub pine of the *pinus resinosa* or norway variety, while forests of a similar variety extended south to and about the Calumet river. It was upon this forest growth that the early settlers depended for timber with which to construct the fort and stockade and the few log dwellings of the earlier days.

Probably the first frame building in the city was erected by Ezra Adams, a soldier, who by trade was a carpenter and plied his vocation in the absence of absorbing military duties. In 1832 Mr. Adams purchased a small raft of square timber of suitable building sizes, which had been hewed on the Calumet river and wrecked in the endeavor to tow it up the lake to the fort. Mr. Adams was more successful in bringing it into port, and this is the first manufactured lumber or timber of which record is to be had in the annals of Chicago. Mr. Adams died in 1889, but his widow survived until 1896, residing at Evanston, in this county. The population of 1830 is stated at not over fifty, which increased in 1832 to 350, an increase which apparently did not repeat itself during the immediate succeeding years, as we find that in 1833 but twelve citizens voted upon the question of incorporating the town, while in 1834, at the second election for trustees, only 111 votes were cast, and one year later, 1835, but 210 votes were polled, indicating a population of not over 1,000 souls. An official census in 1837 revealed a population of 4,170 persons.

It is a question as to when the first cargo of lumber was brought to Chicago. The venerable Judge J. D. Caton, until recently living in his elegant residence on Calumet avenue, said:

"When I came here in 1833, all the lumber used was whitewood, brought from the St. Joe river, Michigan. There were two schooners engaged in that trade, viz.: The schooner Chicago, commanded by Capt. Carver, and the Ariadne, commanded by Capt. Pickering. Indeed, I first came to Chicago on the latter vessel, which was loaded with whitewood lumber. I had reached St. Joe from White Pigeon on a raft of whitewood, which was floated down the river. In 1834 the Ariadne was replaced by the schooner Illinois, which Capt. Pickering had built at Oswego in the winter of 1833-34. The Chicago and Illinois ran in the same trade during the summer of 1834; after that my recollection is not so distinct, so that I cannot say whether any pine lumber appeared in the Chicago market during 1835, but I feel quite confident that I should have noticed it if any had appeared in 1834, and am very certain that there was none in 1833. In 1836 I built the first house on the school section west of the river, and for which I used pine lumber, which was then plenty in the market, but I cannot say where it was cut. I remember that in the spring of 1834 I went up the North Branch to a point near Clybourn avenue to assist in raising a steam saw mill, which was built there by George F. Walker, of Ottawa, and the late George Hickling. Every able-bodied man in town went to the raising. The mill was of the old-fashioned 'sash' or gate single saw, and could probably cut 2,000 feet of boards in twelve hours, from the cottonwood, oak and elm, which were indigenous to the soil. A standing joke regarding this mill was that its crank pin was made of oak, and that in place of the saw making a full stroke, the log rose to meet it half way. Saw mill men will appreciate the sarcasm, especially such as remember the old-fashioned gate saw and bail dog of the early saw mill days. In 1832 or 1833 another Mr. Walker, of Walker's Grove (now Plainfield), built a water saw mill on the Du Page river, one or one and a half miles from the present site of Plainfield, where he manufactured oak, walnut, hackberry, cottonwood and elm, which he teamed forty miles to Chicago for a market. S. B. Cobb, I remember, went to that mill in 1833 and got the lumber with which to build the first harness shop on the west side of the river. I got lumber from there as late as 1842."

Judge Caton was then a young lawyer, who in 1834 commenced the first suit filed of record in this bailiwick, but which was succeeded in 1835 by a large number of suits.

From all this it may readily be seen that the lumber trade had not assumed any great proportions down to 1835, notwithstanding Judge Caton's assertion that the schooners Chicago and Illinois were running in that trade. Their capacity, so nearly as can be ascertained, did not exceed ten or fifteen thousand feet each, and the traffic of the time did not demand any superfluous energy to cause an endeavor to make frequent trips. Previous to 1836 it is doubtful if market could be found for more than half a million feet, and surely not to exceed a million. There is no data obtainable to show that there was any demand from the interior, at least in excess of the production of the two or three small mills, which,

John Mason Loomis

it would appear, had but a limited home market, or would not have been under the necessity of hauling the lumber forty miles to a market in Chicago.

The venerable S. B. Cobb has pleasant recollections bearing upon this subject:

> "I landed in Chicago in May, 1833. I was strapped to the extent that I could not pay the $3 passage money from St. Joe, and the captain wished to hold me until it was paid. A fellow passenger, however, came to my rescue, and I was set ashore in a Mackinaw yawl boat or barge, at a point near what is now the foot of Madison street, which was then the entrance to the river. As I stepped from the boat a man greeted me with the enquiry, 'Did you come in that schooner? Are there any carpenters on board?' I was but twenty years of age, alone in the far west, with but one sympathizing friend to whom I could under any circumstances appeal, and he the stranger who had so kindly paid my fare. 'Yes,' I replied, 'I came on her; there's no carpenters on board unless myself.' 'Are you a carpenter?' he asked. 'Well, no,' I answered, 'but I am handy with tools.' 'Well,' said he, 'I want some one to buy lumber and boss the building of a hotel and I will give you a dollar and seventy-five cents a day if you will go right up with me now.' I went with him and found very little lumber, and, as more was requisite, I found that the only lumber to be had which was suitable for the work was whitewood, made at some small mills in Indiana and hauled to the village by ox teams. My employer I found to be James Kinzie, and his hotel was at what is now the corner of Lake and Canal streets. I had the privilege of selling some of the lumber, and, although it was but a few odd boards at odd times to accommodate the few neighbors of the settlement, yet I believe that I can honestly claim to have been the first lumber dealer of Chicago. Within a year or two after this George Huntoon built a steam saw mill on the north branch to cut native timber, but it was not a paying investment, and afterward passed into the hands of Gurdon S. Hubbard." (This, no doubt, is the same mill spoken of by Judge Caton as the Walker mill. —Ed.)

It is fair to assume that no lumber reached Chicago by the water route previous to 1833, when Judge Caton came over from St. Joseph, Mich., on a cargo of whitewood manufactured at some point on the St. Joe river and rafted down the river to its mouth for shipment, but it is pretty well authenticated that in the fall or winter of 1834-35 there were several small mills erected on Buck Creek, a tributary of Grand River, Mich., near the present town of Grandville, and about six miles west of Grand Rapids, for the purpose of supplying the wants of the settlers who were beginning to seek homes in that section, and, as well, to send any surplus of production to the village of Chicago, which was beginning to show signs of growth and of a requirement for lumber. Among those who thus appreciated to some extent the coming demands of the new country were Mr. John Wright, a settler of Chicago; Nathaniel J. Brown, who was connected with the stage lines between Detroit and St. Joseph, who later was a real estate dealer and banker of Chicago; with others whose history is not now traceable. Regarding these early mills, Mr. Thomas D. Gilbert (see Grand Rapids), one of the early pioneers, who at an advanced age was an active business man of Grand Rapids, Mich., and president of the gas company of that city until his death, in 1894, said, in speaking of Mr. Wright:

> "Mr. Wright became a prosperous business man in Chicago, leaving descendants, some of whom are, no doubt, still living in that city. I feel sure that his shipments must have been the first from the west shore of Michigan, because north of Grand Haven, to Mackinaw, the land had not been bought from the Indians, and the further reason that the mouth of the Kalamazoo river did not have water enough for even the smallest of the small vessels of that day. In August, 1835, I became interested in a small mill near Mr. Wright's, but did not ship any lumber to Chicago until the spring of 1836. It is barely possible that some lumber may have reached Chicago from Green Bay before this, but I doubt it. In 1836 a steam saw mill was erected at Grand Haven, from which considerable shipments were subsequently made.
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> "My personal knowledge of the lumber business and men and events in this region dates from June 10, 1835, when I became a resident of Grand Haven. There is, I think, but one man now living in this section who knows about the early saw mills on Buck Creek, a Mr. Robert Howlett, a hale old man of eighty-five, now living at Grand Haven. Mr. Howlett, in 1832, bought a farm near Grandville and within a mile or two of the mills on Buck Creek, and from him I learn that Messrs. Bull and Wright built a mill on the creek and commenced sawing lumber in July, 1834, but the mill did very poor work at first, and he thinks no lumber was shipped in that year, i. e., 1834. He further says that Brown & Britton built a mill on Buck Creek in 1834-35, and had it ready in the spring of 1835, and he thinks that they shipped some lumber in the early summer of 1835. The Mr. Brown was probably Nathaniel J. Brown, now of Lemont, Ill., who was one of the early settlers. I afterward became acquainted with Mr. Britton, but cannot give you his history. Mr. Howlett tells me that he bought lumber of Bull & Wright in the fall of 1834, but that it was very poorly sawed, so that it is not probable that those gentlemen made any shipments in that year. I think the chronology of those mills was about as follows: Bull & Wright built the first mill in 1834, but did not ship any lumber to Chicago in that year. One Gordon built a mill above the Bull & Wright mill in 1834-5, and sold it in August, 1835, to a company from Grand Haven. I was interested in this mill, but it never shipped any lumber to Chicago. N. J. Brown and Britton built a mill above the Gordon mill in 1834-35, contemporaneously with Gordon, and I understand from you that Mr. Brown claims to have shipped his lumber on the schooner White Pigeon in April, 1835. That vessel did not winter at Grand Haven

and could not have got through the straits so early, hence I conclude that Mr. Brown is mistaken as to time, unless the vessel wintered at St. Joseph, which she may have done."

(In this connection we may call attention to the date of the license issued to Mr. Brown by which he was authorized to sell his lumber in the Chicago market as corroborative of his claims in that respect. The slight confusion of dates, however, in no wise detracts from the established fact that the first mills in Western Michigan to ship lumber to the Chicago market were located on Buck Creek, and that the first shipments were made in the spring and summer of 1835.—Ed.)

Mr. Nathaniel J. Brown, above mentioned, is yet living, a hale and energetic citizen and land-owner at Lemont, and, although he has passed the term of life usually allotted to man, is, at eighty-seven as full of business life and activity as the average man of half his years, and says:

"I was engaged with my brother in running the stage line between Detroit and Lake Michigan over the old territorial road which then formed the great thoroughfare to the west. My station was in Kent county, Mich., where I became impressed with the great value of the immense pine forests of that section, which had as yet attracted little or no attention. Of these I acquired a considerable tract, and in the fall of 1834 I went to Detroit and purchased the iron work for a saw mill, which, with a winter's supply of provisions and tools, were shipped on the schooner White Pigeon to the mouth of Grand river and toted by team to a point on Buck Creek, about seven miles from the present city of Grand Rapids. Here I built my mill, and the early spring of 1835 found about 600,000 feet of my lumber in raft, upon which I, with a big lumberman from the state of Maine, floated down to the mouth of Grand river, where a cargo was loaded upon the schooner, which had wintered in the river. The schooner arrived at Chicago river April 5, 1835, and I at once made endeavor to sell the lumber, which was the first white pine which had reached the town. There were one or two lumber dealers handling whitewood from St. Joseph, together with some native lumber, but no white pine. These dealers at once disputed my right, as a citizen of another state, to sell lumber in competition with them, and were in no wise disposed to welcome the innovation of white pine. Insisting upon my rights, I was arrested, but, appealing to the clerk of the county commissioners of Cook county, I was, on payment of a license fee of $6, granted a permit, of which the following is a copy:

State of Illinois, County of Cook.—ss.

Authority and permission is hereby granted to N. J. Brown to vend, sell and retail goods, wares and merchandise in Cook county, Illinois, for and during the term of one year, if approved by the commissioners court of Cook county, upon paying into the county treasury the sum of $6, his tax and the cost of this permission.

[*] Given under my hand and private seal at Chicago, 21st day of April, A. D. 1835.

RICHARD J. HAMILTON,

Clerk of County Commissioners Court, Cook County."

"Having received the above document, I found a purchaser for my lumber in the person of William B. Ogden, who took my entire stock at $28 per thousand feet, and paid me in silver dollars, which I packed in axe boxes, $1,000 to the box, and deposited the whole with Newberry & Dole, who gave me drafts on Oliver Newberry of Detroit, and, purchasing a horse, with saddle and bridle, I started for that city, and settled with the merchants from whom I had obtained credit the previous fall. I then proceeded to Ionia county, Mich., where, in connection with Augustus Garrett, an auctioneer and real estate dealer in Chicago (whose name has become indissolubly connected with the Garrett Biblical Institute at Evanston), I laid out the city of Ionia and sold a large number of lots, and was largely interested in real estate in Milwaukee and Madison, Wis., and, still in connection with Mr. Garrett, purchased and operated in large quantities of real estate in Chicago and its neighborhood, until the panic of 1837 effectually put a quietus on all kinds of speculation. In the construction of the Illinois and Michigan canal, I took the contract for two sections, embracing about one mile in the limestone rock cutting near Lemont, and, appreciating the value of this rock formation in the later development of the country, acquired a considerable extent of it, and am now, as for many years past, engaged in the quarrying of it. The shipment of lumber in the spring of 1835 leading up to the enterprises mentioned above, ended my immediate connection with the manufacture and sale of lumber."

The venerable James F. Lord, until recently residing at Chicago, and who died January 29, 1893, at the ripe age of eighty-nine years, and who was for many years not only a manufacturer in Michigan (among the earliest), but was for many years a yard dealer in this city, had some interesting recollections of the early days of Chicago and its lumber trade.

"I had a saw mill in 1837 at St. Joseph, Mich., being the first mill built at that point, although there were some mills up the river which rafted their lumber to St. Joe for shipment. Mine was the first steam mill in western Michigan, having been built in 1832, by McKillop & Deacon, but as there had been but little demand for lumber it had been but little used when I bought it. My cut was some pine, but more largely whitewood, black walnut and oak, all of which abounded in the neighborhood, except that being well upon the southern border of the pine belt, that was less plentiful. The first saw mill at Muskegon was erected in 1837 by Benjamin H. Wheelock, using the engines and boilers of the steamer Chicago, which had been wrecked at St. Joseph, in 1836. The same year (1837) Jonathan H. Ford began building a water mill at the mouth of Bear Lake, from which a cargo of 40,000 feet was shipped in February, 1839, which was ten days on the passage to Chicago.

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[*] This was the first license fee imposed upon a lumberman in Chicago, and we learn of no other until 1884, when a fee of $100 was imposed as will be shown later on.

In 1835 or 1836 I brought over some lumber for completing the Lake House, the most pretentious hotel in the city. This was from pine cut from the school section on the Paw Paw river, Mich. In 1847 I had a lumber yard in partnership with Samuel F. Sutherland, which was located on La Salle street on the north side of the river. Our office was a few boards standing on end against a pile of lumber, our books we kept in our hats. When it got cold we would sometimes go into a foundry kept by a man named Granger, who had been nicknamed 'Plug,' it being averred that he had done some logging in the east, and had been caught 'plugging' some hollow logs before dropping them into the river."

Loren P. Hilliard, Esq., late of Washington Heights, a suburb of Chicago, previous to his death related many pleasant reminiscences of the early days of the Chicago lumber trade. Mr. Hilliard reached Chicago in May, 1836, finding here a population approximating 3,000 souls. Of his personal recollections he informed the historian, viz:

"While awaiting a land sale by the canal commissioners, I was induced to take a trip on the schooner Wisconsin, Capt. Arndt, which was about to sail with men, provisions and tools, for the clearing up of a new town site on the Wisconsin shore of the lake, and which was to be called Manitowoc, and from there to take a look at some of the wilderness country about Green Bay, which was beginning to be talked about. On reaching the site of the new town I obtained some provisions from the cook of the vessel and started on a pedestrian trip northward. About three miles from Manitowoc I found a small water saw mill owned by a man named Conroe, and about five miles from Green Bay, at what is now Depere, there was another mill, the name of whose owner I do not remember. The vessel upon which I sailed was in quest of a cargo of lumber which was sawed at this latter mill. At this time George W. Snow, owner of the Wisconsin, had a lumber yard on the river at North Clark street. Capt. David Carver, who died in 1891, had a yard on the corner of State and Water streets. These yards were of course but small in extent, the lumber being simply shoved on to the river bank, although the better grades were selected and piled by themselves on the south side of the street; lumber in those days, however, was sold pretty much as it left the saw, except that the coarser common was retained at the mills and was not considered merchantable. At Green Bay I was fortunate in catching one of the few steamers which at that time plied between Buffalo and Chicago, stopping at all important settlements, and returned to Chicago. The land sale presaging the early construction of the Illinois and Michigan canal, with the festivities attending the throwing out of the first spadeful of dirt at Bridgeport on July 1, 1836, gave great impetus to trade of all kinds, and brought many new settlers into the country, all of whom added to the increasing demand for lumber as well as other supplies, and the volume of receipts was a constantly increasing one. The land grant of the canal commissioners embraced the odd numbered sections for ten miles each way, the school sections only excluded.

The land sale did not result in the transfer of a large body of land at that time, but it encouraged those who had settled and induced a still more rapid immigration. About all the lumber which had reached the settlement up to this time was brought by vessels which, needing return freights, purchased lumber at the mills and aimed simply at making a freight. Newberry & Dole had a large warehouse on the river bank, and Mr. Dole dabbled in lumber, much of which was bought on a venture, and not selling readily, was stored with him for sale. Gurdon S. Hubbard also handled a little lumber and was interested in a saw mill on the North Branch. I was not actually engaged in the lumber business until about 1844-45. I had become interested in vessels and was the owner of an interest in several, among which was the propeller Independence, the first propeller built on Lake Michigan. In 1845 I built the schooner L. P. Hilliard, and in keeping this and other vessels employed it often became necessary to purchase cargoes of lumber, and if not sold readily on arrival it was stored on the river bank until a customer could be found. There was no dock north of what is now La Salle street, and the river bank was utilized along what is now Wells and Franklin streets to the bend of the river, which was considered the head of navigation. In 1849 I started a yard on the corner of Adams and Market streets, as the growth of the city had now made this location a desirable one, and this was my first regular lumber yard.

The Illinois and Michigan canal was at this time completed and a good trade had sprung up with St. Louis and other interior points. The total lumber receipts of 1848 had reached 60,000,000 feet. Contemporaneous in the business were George M. Higginson, John Milton Underwood, Sylvester Lind, Butler & Norton and about this time A. G. Throop, R. H. Foss,—McCaig, Hugh Dunlap, Barber & Mason, Darius R. Holt, John Mason Loomis and Harrison Ludington."

Mr. Hilliard in 1861 was elected county clerk, which office he held for four years. In 1866 Mr. Hilliard, in company with Jones & Hough, contracted with the Chicago & Alton Railroad Company to dock the lumber which was to be transported over their line, and after a couple of years Col. Pierce, desiring to join them, the business was enlarged to a regular yard trade, which under the name of Hilliard, Pierce & Co., was continued until 1871, when the admission of Worthy T. Churchill changed the firm name to Hilliard, Churchhill & Co. This firm operated a saw mill at Alpena, Mich., for about four years, when the panic of 1873, bad contracts and a shortage of logs caused a failure, and Mr. Hilliard ceased to be a factor in the lumber trade of which he could properly be regarded as one of the fathers.

The venerable Charles Mears, who is prominently mentioned in connection with the history of Chicago, where he died in 1895, in the enjoyment of an ample fortune to round out a busy life in the bosom of a young family, was another witness of the day of small things in the Chicago lumber trade. From him also we learned of the mills at Grandville, Mich., in 1836. One Hathaway had a mill at Grand Haven, which was afterward supplemented by that of A. G. Throop and the Michigan Lumber Company, all of which found market for their product in Chicago. Walters and Allen did a small commission business in 1838, at a point where the river branches. Their trade was confined to the receiving of the small cargoes in vogue in those days, and which could not be disposed of as readily as the captain of the vessel or his owners thought desirable. A cargo or two of from 30,000 to 50,000 feet swamped the market. Mr. Mears brought lumber to Chicago in 1838, and unloaded on a half dock above Clark street. At that time Newberry & Dole had a small dock below Rush street. Mr. Mears settled in Milwaukee in 1839, removing to Chicago in 1847. He built a clapboard and shingle mill at White Lake, Mich., in 1838, selling his product in Chicago and Milwaukee. Mr. Mears owned and ran his own vessel, which is described to us as a small craft carrying about 15,000 feet of lumber, whose shape led it to be spoken of as "Mears' Flat Iron." It was the general understanding of the day that Mr. Mears and his one assistant ran the mill at White Lake until they had a cargo of lumber cut for a load for the "Flat Iron," and then the sawyers turned sailors, loaded their craft and sought a market. On one occasion, having unloaded his vessel on Saturday, the wind coming fair on Sunday morning, Mr. Mears discovered that a keg of powder which was much needed at the mill had not been obtained from "Matt" Laflin, who kept the store at which Mr. Mears traded, and who kept a stock of powder in the magazine of the fort. He found Mr. Laflin, who told him that he could not possibly let him have it on Sunday, at least until his wife had gone to church. He waited and got the powder. Sunday ethics were in vogue in those days, and so was whipping the devil round the stump. Mr. Mears remembered seeing the graves of the soldiers of the Massacre of 1812, who were buried in the cemetery on the lake shore just north of Madison street, washed out in a big storm in 1838, and the bones scattered along the beach. About this time Mr. Mears remembered a saw mill, cutting oak, elm and cottonwood, on the south branch of the river at Stowell's slip, which was operated until in the forties, and was then used by Wood, Henderson & Co., as a sash, door and blind manufactory, and subsequently by Goss & Phillips, and still later by the Palmer & Fuller Co. (Ephraim Stowell's ledger shows that he ran the saw mill until about 1854.) The old mill was torn down about 1857. Through the passing years Mr. Mears was engaged in the manufacture of lumber at several points on the Michigan shore, and was an active operator in the Chicago market from the days when he, in 1838, brought his first cargo to the then village. (See Pentwater.)

Mr. Mears had some pleasant reminiscences of the early trade. When in 1837-38 he brought in a jag of lumber which did not sell readily, he left it with Josiah E. McClure, of the firm of McClure & Larrabee, to sell for him. On one occasion, while unloading a lot of lumber and shingles, a man from the country purchased shingles of the value of $7.50, offering him two $5 bills in payment. Not in the habit of handling such large sums of money and somewhat distrustful, he scanned the bills and asked, "Are they good?" The customer replied: "If these are not good there's no good ones in the country." Mr. Mears gave him his change and went up to the store, where he submitted the bills to the judgment of H. O. Stone, who at once pronounced them counterfeit. Mr. Mears returned to the boat and secured the shingles and proposed to prosecute the fellow. During the confab which resulted a clerk of McClure's, the only witness to the transaction, fell into the river and was drowned, and having no witness to corroborate his evidence Mr. Mears had to pocket his loss and let the fellow go. The loss of that $2.50 hurt Mr. Mears more than the loss of $1,000 would a few years later.

From all that has preceded we may assume that it is sufficiently authenticated to be set down as reliable history that the first lumber to reach Chicago was whitewood from St. Joe, Mich., and that 1833 witnessed the arrival of the first cargo. That it was whitewood may well be assumed, not only on the evidence of Judge Caton, who made his first entry into the city on a cargo of that kind of lumber, and the evidence of Maj. James F. Lord to the effect that whitewood was more plentiful than pine and cut to a larger extent in the mills which were in operation at the only point of shipment, but as well from our knowledge of general facts and conditions. The McKillop & Deacon mill, mentioned by Maj. Lord as having been built in 1832 and purchased by him in 1837, was, without doubt, the first steam saw mill in the west and the first to manufacture white pine, although in limited quantity, as compared with whitewood and hardwoods.

About this time a few small mills were being erected on the shores of Green Bay, Wis., and in the course of a year or two began to send small cargoes of lumber to Chicago, so that by 1839 the lumber trade began to assume proportions of considerable magnitude.

A few statistics from Fergus' reprint of the Chicago directory of 1839 will be of interest in this connection. The population of the city is set down as follows: 1835, 3,265; 1836, 3,820; 1837, 4,179; 1838, 4,000; 1839, 4,200. The first charter election occurred May 2, 1837; the candidates for mayor were John H. Kinsey, Whig, and William B. Ogden, Democrat. There was a total of 709 votes cast, Ogden receiving 493 to Kinsey's 216. Edward H. Rudd's business directory of 1839 contains thirty-nine pages of city ordinances, six pages of classified business directory, and six pages of advertisements. Under the head of lumbermen it gives the names of Colvin, Edward B., door and sash maker, Dearborn and North Water streets; Fullerton, A. N., lumber merchant, North Water street; King, Willis, Randolph street; Miltimore, Ira, steam sash and door factory,

South Branch; Mylne & Morrison, lumber merchants, South Water street; Snow, Geo. W., & Co., lumber merchants, South Water street. A reprint made in 1883 adds several other names which we do not find in the original, a copy of which was in the possession of the late Hiram Murphy of the Hamilton-Merryman Company, to whose courtesy we are indebted, and whom we learn from the book to be Chicago-born, the son of one of the earliest hotel-keepers of the city. While we have grounds to doubt if the Rudd directory exhausts the list of those engaged in the various branches of the business at that time, we may, with equal assurance, assert that the Fergus reprint, which appeared in 1883, and was confessedly to a goodly extent an endeavor to recall from memory who should have been named at that time, was more greatly in error on the other side. Both Mr. Jacob Beidler and Mr. Avery, while still living, asserted that they did not begin lumbering for some years later than 1839. Mr. Beidler gives 1844 as the date at which he began operations. The reprint, however, gives the following names:

Allen, James P., inspector, South Water, foot of Franklin; Avery, Charles E., corner of La Salle and South Water; *Barber (Jabez) & Mason, Market, near Randolph; Colvin, Edward B., door and sash company, North Water, near Dearborn; Dodge, Martin, salesman, North Wells and North Water; Dunlap, William (Hugh ?), lumber yard, Clark street; Fullerton, A. N., lumber merchant, North Water; Finnemore, Richard, whip sawyer, North State and North Water; †Huntoon, Capt. Bensley, steam saw mill, North Branch; King, Willis (King and Tinkham), Randolph Street bridge; Lind. Sylvester, carpenter, 55 Clark; McFall, Francis, sash, door and blind factory, Market Street; Mylne (Robert) & Morrison (Alexander), South Water near Franklin; Miltimore, Ira, steam sash and door factory, South Branch; Morrison, Alexander, lumber dealer, (Milne & Morrison): Snow, George W., lumber, South Water, corner State; Waller Virgil, lumber, River Street; Woodbury, Adoniram Judson, bookkeeper for G. W. Snow.

From this it would appear that there were six dealers in lumber with yards in 1839, three manufacturers of sash, doors and blinds, one saw mill, one whip sawyer, and one inspector. The latter was probably a measurer, although Mr. Allen's friends claim that he was at this time a yard dealer, and Mr. Mears speaks of the firm of Walters & Allen as being in the commission business as early as 1838. Of the lumber supply of 1839 we have no reliable data, but estimating upon the basis of consumption in the years of which we find reliable data, and we arrive at the conclusion that 4,200,000 feet is a liberal estimate. In the directory for 1846 we find statements of the receipts of several years, those of 1843 being stated at 7,545,142 feet of lumber, 4,117,025 shingles, 16,600 feet of square timber, 57,000 staves, and 430 cords of bark. The receipts of 1844 are given at 19,160,407 feet of lumber, 12,285,000 shingles, 66,478 feet of timber, and 137,000 staves, while those for 1845 give 22,526,508 feet of lumber, 17,883,000 shingles, 1,397,000 bundles of lath, 67,484 feet of square timber, and 2,355 cedar posts. The prevailing prices for lumber in 1840 were for clear per thousand, $18@$20; merchantable, $12@$14; flooring, $14@$16; refuse, $8@$10; shingles, $2.50@$4.

Figuring receipts of former years upon the basis of known population and reported receipts of 1843-44-45 it is probable that the receipts of lumber for 1833 may be assumed to have been 30,000 feet; 1834, 500,000 feet; 1835, 1,500,000; 1836, 2,500,000; 1837, 3,000,000; 1838, 3,500,000; 1839, 4,200,000; 1840, 4,479,000; 1841, 5,752,000; 1842, 6,248,000; while from this time we have fairly reliable data. In 1843 the consumption was about 1,000 feet per capita, increasing to 2,395 feet per capita in the following year; 1,863 feet per capita in 1845; and 1,905 feet per capita in 1847. In our calculations for some of the earlier years we have assumed 1,000 feet per capita consumption upon the reported population.

Pausing a moment in this retrospective view of the lumber business of the earlier days of Chicago, it will be interesting to note the growth in population. The population of 1833 was not far from 300 souls, the charter election of four years later called out 709 votes, which would indicate a population of not far from 4,000; the following table, however, shows the relative growth from the earlier years to the present time:

1833 (est.).....	300	1847	16.859
1834 (est.).....	1.500	1848	20 023
1835	3.265	1849	23.047
1836	3.820	1850	28.960
1837	4.179	1855	80.028
1838	4.000	1860	112.172
1839	4.200	1865	178.900
1840	4.479	1870	298.977
1841	5.752	1875	407.661
1842	6.248	1880	503 185
1843	7.580	1885	......
1844	8.000	1890	......
1845	12,088	1892 (est.).....	1.420.000
1846	14.169	1898	1.883.000

The canal commissioners' sale of city lots in their subdivision of Chicago, at the sale in 1836, brought from $25 to $100 per lot for land which is now of a value of from $3,000 to $5,000 per front foot. The city debt in 1843 was $8,977.55, and the tax roll of that year footed up $7,852.45. The school tax was $685.24. A statement of the exports and imports of the city for a series of the earlier years, subsequent to 1835, as follows:

Year.	Imports.	Exports.
1836...............	$ 325.203 90	$ 1,000 64
1837...............	373,667 12	11.065 00
1838...............	579.174 61	16 044 75
1839...............	630,980 26	33.843 00
1840...............	562,106 20	228,635 74
1841...............	564,347 88	348,362 24
1842...............	664,347 88	659,305 20
1843...............	971,849 75	682,210 85
1844...............	1,686,416 00	785,504 23

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*Mr. Barber was lost on board the unfortunate steamship Pacific, which never made port on her voyage from New York to Liverpool.

†The mill of Capt. Huntoon was near the present Chicago Avenue bridge.

1845.............	2,043,445 74	1,543,519 85
1846.............	2,027,150 00	1,813,468 00
1847.............	2,641,852 52	2,296,299 00

These tables of course include the imports and exports of all kinds and classes of goods, details of which are given only in 1845, when the value of forest products is set down at $196,687.10, and upon the same basis we may safely assume that the import value of lumber, timber, shingles, etc., for 1843 was $64,000, and for 1844, $171,000.

Norris' Directory of the business interests of Chicago for 1846 says:

In 1838-39 nothing very important occurred. The canal was in progress during this period and had necessarily an influence upon the business of Chicago. The country was now settled to such an extent that Chicago became the depository of a large amount of produce annually, and the trade in lumber, salt and other articles of consumption in the interior was daily giving more and more stability and extent to the business of the place.

Somewhere between 1839 and 1843 (assuming the correctness of Rudd's Directory of 1839) the following named persons were added to the ranks of the lumbermen of the young city, the date of their coming not being clearly established:

Avery, Charles E., South Water, corner of Franklin; Barber, Jabez, Market, near Randolph; Dunlap, William, clerk in lumber yard; King, Willis, Randolph Street bridge (King & Tinkham); Lind, Sylvester, carpenter, boards 55 Clark; McFall, Francis, sash and door factory, Market Street; Underwood, John Milton, Market, near Lake.

Mr. B. W. Thomas is still a hale, hearty and vigorous young man for one who came to Chicago in 1841 and commenced in the lumber business two years later. Mr. Thomas has for several years past been in the real estate business, and is now in charge of the Marine Bank building, in which he has an office. He came to Chicago in August, 1841, from Buffalo, N. Y., and was in merchandise with ex-Mayor Alexander Lloyd for one year at 101 Lake street. In 1843 he became a clerk for Sylvester Lind, who had just bought out John M. Underwood, who had a lumber yard on Market, south of Lake street. Mr. Lind had been a carpenter, and was noted as such in the directory of 1839. It is a noticeable fact that a large proportion of the lumber merchants of the first half-century of national existence gravitated from the carpenter's bench to the lumber yard, he locating on Market street, south of Randolph. It was upon this yard that the first packet boat for use upon the canal was built. In 1848 as the canal approached completion, Mr. Thomas sold a bill of lumber for the residence of Isaac Hardy at La Salle, Ill.; this he rafted from his docks to Bridgeport, where it was carted around the uncompleted locks, and loaded on flat boats used for carrying stone, and taken to its destination. This was no doubt the first lumber transported on the Illinois and Michigan canal, and the forerunner of an era of great expansion to the lumber trade of the city.

The receipts of 1848 aggregated 60,000,000 feet, which immense quantity was the cause of great rejoicing among the lumbermen and citizens generally. The Board of Trade had now been established under the general laws of 1848, which permitted the incorporation of boards of trade and chambers of commerce without registration or certification from the secretary of state. The lumbermen of the city were almost to a man included in its membership. The board at that time met in Steele's block, corner of South Water and Wells streets, where George B. Carpenter's store now stands. The *esprit du corps* was rather low, if we may judge from the statements of several gentlemen who assert that it was not infrequently necessary, in order to obtain a quorum, for the secretary to announce a free lunch, which usually consisted of crackers and cheese, but was generally potent in securing a good attendance. At this time the proportion of lumbermen in the membership was greater than from all other lines of business. Even in that early day the lumber business overshadowed all other lines in its volume and importance, and it has never from that to the present time surrendered its prestige. The Board of Trade was subsequently removed to the opposite side of the street. Mr. Thomas remained in the lumber business, with but the intermission of a term of service in the army during the war, until 1871, when he retired, selling his yards to A. & T. Wilcox.

The connection of Capt. David Carver with the yard business of the early days is not well defined. That he brought in the first cargo of lumber which reached the city, in a vessel named after himself, has for many years been accepted as history. Our present researches, however, assign that honor to Capt. Pickering, of the schooner Ariadne, with whom Judge Caton came to the city on a deck-load of what the judge is confident was whitewood, and the first vessel-load to reach the port. That the judge is correct is the more probable from the fact of his well-known memory for dates, and his clear recollections of events of contemporaneous history. Still, it may safely be assumed that Capt. Carver was one of the first, if not the earliest, of the lumber dealers of the city. Mr. Hilliard mentions Capt. Carver and George W. Snow as having yards in 1836. It is quite probable, if not reasonably certain, that as the master of one of the small vessels of the day, whose business consisted principally in searching the shores for something to make a little money out of, he picked up some lumber at St. Joe or some other point, which it was hardly difficult to do after 1833, and finding an increasing trade, opened a yard for its sale. Be this as it may, it is evident that he did not continue long in the business, as his name does not appear in the directory of 1839. Capt. Carver's yard was on the corner of State and Water streets, which was the location of the dock of Newberry & Dole, which was the only dock, or apology for a dock, which then was adapted for the landing of goods. As the business increased beyond the capacity of his little vessel to supply the yard, the captain sold out his business to George W. Snow.

Previous to 1833 the dependence of the settlers, whose wants in this respect were very modest, were supplied by the local saw mills, the first of which we have record being the pit saw mill (if mill it can be called) of James Cammack, which was located near the present Kinzie street bridge, and was operated by Mr. Cammack on top of the log, with his son John in the pit beneath, and the product was about 100 lineal feet per day of the oak, elm or cottonwood which grew near by. Neither the original directory of 1839 nor the reprint of later years mentions the Cammacks nor William Laister, whom the directory of 1846 names as having a "wind saw mill," North Branch, Fourth ward. There is little doubt that the mills spoken of by Judge Caton and Mr. Cobb as the "Walker" and also as the "Hickling" mill, was the same as is elsewhere spoken of as the Gurdon S. Hubbard and also as the Huntoon mill. This mill did duty for many years in sawing the local timber, but as to when it went out of commission there is no record. Of the Laister mill history is silent except to record its existence. It was undoubtedly like many another scheme whose motive power is wind, and which eventuates in nothing but wind. Another saw mill was erected about this time in the south part of the city—indeed, well in the country in those days—it being on a slip made out of a bayou on the river near Twelfth street, and was erected and operated by Ephraim Childs Stowell, who was operating it as late as 1854 in sawing native timber, with some re-sawing of square timber brought from across the lake. This mill was used by Wood, Henderson & Co. and Goss & Phillips until 1866, and by Palmer & Fuller as a planing mill, sash, door and blind factory until about 1871, when it was pulled down.

It is probable that the earliest lumber received from abroad came by ox team before the arrival of the vessel load mentioned by Judge Caton, as it is mentioned as an indistinct recollection by several old settlers that lumber was brought from the Ohio river by teams coming from the south in quest of goods and provisions which could be brought by lake, and Chicago was the nearest point at which they could be obtained. The ox team was slow, and would be little, if any, slower with a moderate load, which would help pay the expense of the long journey.

Lumber began to come from Wisconsin as early as 1837-38, and came in limited but increasing quantities for some years after, until about 1845 it began to compete in volume with Michigan lumber. The first mill in Wisconsin of which we find reliable record is mentioned in the recollections of Mr. Hilliard, previously noted, being the mill of L. Conroe, whom we later find mentioned as a yard dealer in the city in company with Henry Mitchell, under the firm name of Conroe & Mitchell (1853-54).

At this point the recollections of the late venerable George M. Higginson, who was still living and doing a real estate business, with an office in the Unity building and a residence at Elmhurst, a few miles west of the city, until his demise, in the fall of 1897, will be of interest. Mr. Higginson said:

"I came to Chicago in 1843, and in the following April I formed a partnership with Lucius Tuckerman, who for a year previous had been a member of the firm of Norton & Tuckerman at 144 Lake street. This firm had a store containing the usually diversified stock of an ordinary country store, and had also in connection with it a lumber yard, which was located on the west side of Clark street, on the north side of the river, near what is now the north end of the bridge. Norton & Tuckerman dissolved partnership in April, 1844, and the firm of Tuckerman & Higginson purchased the stock of goods then on hand and the remaining stock of lumber. It was the intention of the new firm to work out of the store business, which was largely in supplies to the lumber camps of Michigan and Wisconsin.

The new firm assumed several contracts for lumber which had been entered into with Hall & Jerome of Menominee, Mich., Erastus Bailey of Oconto, Wis., and a Mr. Fisk of Depere. Most of the lumber at that time came from St. Joseph, Grand Haven and Muskegon, Mich., and Green Bay, Wis. The Green Bay lumber ran more largely into the better qualities, and sold at $7.50 to $8 per thousand, culls half price, although in many cases only the amount of the freight was allowed for the culls (now known as No. 2, and comprising the larger part of the receipts of the Chicago market). Freights from Green Bay averaged about $2.50 per thousand. Muskegon came next to Green Bay for quality, while Grand River, Kalamazoo (Saugatuck) and St. Joe stock ran largely to common, and the price by cargo was from $6 to $7 per thousand, culls half price. There was no inspection in those days, the lumber being rated only as 'merchantable and culls,' and the purchase of a cargo was usually made from an examination of the surface of the deck load, and upon the representations of the owner. In this way we sometimes got an extra good bargain, and sometimes we felt that we had a very poor one. In the spring of 1845, with freights at $1.50 per thousand, we contracted with William M. Ferry for a million feet of Grand Haven lumber at $7, delivered at Chicago, and to be cut to such bills of lengths and sizes as we might desire to fill building contracts.

As the season turned out this proved a poor contract for us, as we could purchase on the open market at from fifty cents to a dollar and a quarter less by the cargo. I remember buying a small but excellent cargo from a Mr. Rose of Muskegon at $5.73 per thousand, which ran one-third first and second clear. When lumber was classified in those days it was in four qualities, viz: Clear, second clear, common and culls, or, if a lot was bought 'merchantable,' it was the log run, culls out.

I think it was in 1848 that the first cargo of Saginaw lumber reached Chicago. This was a shipment by James Frazer of Co-qual-in (Kawkawlin), near Bay City, and was a surprise to Chicago dealers, as we had never seen any lumber here running so largely to uppers, so perfectly clear and well sawed, but the main novelty consisted in the fact that it was the first cargo, so far as I know, which contained any circular-sawed siding and flooring, the ordinary kinds being cut with the mulay saw, or gate saw, the siding coming in stubs of six to eight pieces each, which gave them a rough appearance, leaving a rough end for several inches when broken apart and piled in the yard."

Note.—We think Mr. Higginson must, before this, have seen some of the siding from the mill of Mr. Charles Mears, at White Lake, and other mills which before this time were operating circular saw siding machines which dropped the lumber clean cut and free from stubs.

"I made a bid of $7.50 (which I thought was the top of the market) for the cargo, but Mr. Frazer got an offer of $8 from his brother Scotchman, Hugh Dunlop, and, of course, took it. When I began business, in 1844, George W. Snow had a lumber yard on South Water street, corner of State; Newton Rossiter had a yard corner of La Salle and South Water; Barber & Mason were on the corner of South Water and Wells streets; John M. Underwood was on West Water street, near Lake, and was then the heaviest dealer of the city; Sylvester Lind was on the east side of the river at what is now the center of Market Square and Randolph. This comprises the list of dealers whom I now recall, but the list is, no doubt, incomplete. The fall of 1847 was a season of great trepidation among the lumber dealers, not only in consequence of the hard times resulting from the panic which was so severely felt in the east and which could not help to some extent affecting all sections of the country, but as well from the operations of a band of incendiaries who were at work nearly every night, making lumber yards the special object of their attention, my own among the number. Some of the yards suffered severely, but my loss was light, owing to the fact that I had two yards, and my lumber was loosely piled, so that my loss was limited to five or six piles only. I think that Foss & Price had their planing mill burned at this time.

In the spring of 1846, Mr. Tuckerman deciding to join his brother in the iron business in New York, we dissolved partnership, and I continued the business alone, having disposed of the stock of goods in the store.

About 1849 the question of inspection came up in the fraternity, and we held a meeting, at which James P. Allen, who was a commission dealer and measurer, enlightened us upon many points regarding it, but no definite action was taken at the time. During the summer Capt. Johnson, who was in the employ of Thomas Richmond, brought two cargoes of Saginaw lumber to this market, which had been piled in the pure air of the Saginaw river for two years. They were the handsomest cargoes of lumber that I had ever seen. After some conference with the captain, who acted as salesman, he agreed to sell me the cargoes (after obtaining Mr. Richmond's consent) at $4 for culls, $7 for common, $10 for second clear, and $12 for clear; and it was Mr. Richmond's own suggestion that it should be inspected by Mr. Allen, to which I consented. Among his culls were many split ends, boards which, otherwise, were clear or second clear, and would rank so in ordinary assorting yards. In fact, I felt that Mr. Allen had favored me to such extent that even my rather elastic conscience rebelled, and I told him that it was his duty to do justice to Mr. Richmond as well as to show favoritism to me, so you can imagine that this new matter of inspection was a surprise to me. On assorting for the yard, I found that two-thirds of the common would pass for second clear, the whole of the second clear would go into first clear, and the first clear, as inspected, was so large and well sawed, of soft grain and with a fresh, clean, straw color, that I made a grade of extras, which brought me $20 per thousand, while the $4 culls I sold for $11 on the dock as they had come from the vessel. When Capt. Johnson came for a settlement, I told him I thought Allen had done him an injustice, and that I would be willing to pay him an advance on the price agreed upon, but he replied that he had purchased the lumber for a freight bill, and, as he had made a handsome freight out of it, he was perfectly satisfied, and if I had any particular advantage in the deal, I was welcome to it.[*] I had gained on his own proposition to inspect, and my conscientious scruples being set aside by his full consent, admission and satisfaction, I paid the bill, and it was the best bargain I ever made in the way of a purchase. The general price at which lumber was sold from the yard during the season of navigation in 1848 was $8 for common, $10 for common flooring and siding, $12 for second clear, and $16 for first clear.

In the earlier years, say from 1844 to 1850, the average sales of the dealers would run from 1,000,000 feet to 4,000,000 feet per annum. The opening of the Illinois and Michigan canal, in 1848, increased their trade to a vast extent, the receipts of 1848 lacking but 4,000,000 feet of being double those of the preceding year. Before that time lumber went into the country wholly by teams, requiring sometimes, in muddy weather, four or six yoke of oxen to haul the wagons. I have often sold lumber to farmers who had come to the city from their own farms at a distance of 200 miles, bringing wheat or other produce.

In 1850-51 the Galena railroad, the first one out of Chicago, was finished to Elgin, and Mr. B. W. Raymond, one of the directors, urged me to establish a yard at that point, stating that he had plenty of freight to Chicago, with little or nothing to take from the city west. I started a yard at Elgin, and soon after another at Aurora, so that I had five yards outside of Chicago. The panic of 1857 depressed the price of lumber for several years, and I closed up my business in that line. In the early years of my connection with the trade the sales of the market ran from 12,000,000 to 20,000,000 feet per season."

In this connection a few paragraphs copied from The Evening Journal of that period may lend interest. In its issue of October 1, 1846, it gives the receipts of forest products from October 1, 1845, to October 1, 1846, as being: Boards and planks, 24,-

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[*] This is the first instance of the kind of which in a half-century of experience we have ever heard, and would to-day be considered good evidence of hopeless lunacy on the part of both buyer and seller.

Geo E. Wood.

424,299 feet; shingles, 8,354,000; lath, 2,069,500; timber, 16,800 feet; staves and heading (pieces), 15,200; pickets (pieces), 24,000. September 28 it mentions a fire in the planing mill of Foss & Bro., in which 2,000,000 feet of lumber was burned, the loss being stated at $15,000, with no insurance, while the lumber yards of Throop, Wait & Co. and T. D. Smith suffered to the extent of $5,000 each, and that of Roberts & Son, $6,000. Two days later The Journal records the burning of Price & Parson's planing mill, with a loss of $10,000. These two fires were supposedly incendiary, and we find no further fire records for twenty years. Under date of November 28 The Journal says: "Twenty vessels with lumber left Grand River, Mich., on the 24th inst., bound for Chicago, which bids fair to become one of the most extensive lumber markets in the country." In a later issue The Journal gives the exports of lumber from Grand Haven for the season of 1848 as 15,500,000 feet, worth $126,750; 8,500,000 shingles, worth $14,875, and 550 pine spars, the value of which is not stated. The Journal sums up the year's business of 1848 as follows:

> "There are thirty-five lumber dealers in Chicago, who so far this year (October 12) have received 49.690,000 feet of lumber, 24,081,000 shingles and 6,028,000 lath; it is estimated that about 8,000,000 feet more will be added before navigation closes. The total receipts will be nearly double those of 1847. This lumber came principally from Michigan and Green Bay, and is reported for The Journal by T. Wright. The figures do not include the coast and small trade."

This "coast and small trade" was no doubt the work of the small craft, which were even more plentiful in those days than the larger vessels, making a business of calling in at the numerous points on the shore where some hardy pioneer had established his cabin, and here sought to eke out a precarious living by "breasting shingles" or riving staves, which these coasters, few of them larger than the long boat of the ordinary vessel of to-day, being able to get close to the shores, made frequent trips in search of, paying in pork or flour, with perhaps powder and shot added.

The commencement of the railroad era, which has been by far the most potent factor in the growth and extension of the lumber trade of Chicago, dates from about 1849-50. The Galena & Chicago Union railroad, which later became the Chicago & Northwestern, had its first ten miles in operation to the Des Plaines river in 1848, beginning public business in January, 1849, and completing its strap rail to Elgin in 1850. It was many years before the demand for lumber in the newly opened country added greatly to the revenues of the railroad or gave impetus to the rapidly extending business of the lumbermen of Chicago, business by the canal affording a trade much more desirable. Canal boats were loaded at the yard, while railroad shipments demanded teaming, which was an increased expense. It was many years before it dawned upon the minds of either the railroad manager or the lumber merchant that the interests of each would be promoted by having a railroad switch running into the lumber yard. In fact, the demand of H. K. Elkin that, as a condition to his granting right of way through his yard, the Michigan Central, which sought the privilege, should agree to give him a switch track, was considered the height of oppression to a struggling company, and the height of assurance on the part of Mr. Elkin, notwithstanding it was coupled with an offer to load all their transfer freight at one-half what it was costing the company to transfer it by team across the city from one depot to another. At this time lumber was loaded in the yards of the railroad company, and a charge of 10 cents was made by the company. Mr. Elkin asked that this charge should be allowed him in case he loaded his own lumber. This, also, was considered an unreasonable demand. After a day of consideration, however, the utility of Mr. Elkin's proposition was realized and his offer accepted so far as the lumber proposition was concerned, and the first lumber yard switch was laid in the yard of Elkin & Merrill, Sixteenth street and the river.

The first train to leave Chicago on the Illinois Central railroad was on May 21, 1852, and its destination Calumet, at that time the temporary terminus of the line, which was not completed to Cairo until August 26, 1854, when an extensive country was opened up, of which the lumbermen were not slow to avail themselves in an extension of trade, as evidenced by the yearly increasing importations of lumber and increased number of dealers.

The Chicago, Rock Island & Pacific railroad was opened for traffic to Joliet, October 18, 1852; the Michigan Central to the east, May 21, 1852, and the Michigan Southern railroad, February 20, 1852. In 1855 the Pittsburg, Fort Wayne & Chicago railroad had completed twenty miles of track, which, by November 10, 1856, had been increased to 383 miles. The Chicago, Milwaukee & St. Paul was the first completed trunk line to the west, running from Chicago to the State line between Illinois and Wisconsin, where it met the line built by the Green Bay, Milwaukee & Chicago railroad, both roads being completed in 1855, and consolidated in 1863. The first telegram received at Chicago was on January 15, 1848, and our retrospective view truly enables us to exclaim, in the words of the first ocean cable message of a few years later: "What hath God wrought!"

It is difficult to overestimate the effect produced in the settlement of Chicago and of the vast region lying to the west, north and south, by the building, first, of the Illinois and Michigan canal, and, later, of the various railroad lines; while the influence of the telegraph and telephone system of communication must by no means be minimized.

While for many years the advantage of railroads as a means for the transportation of lumber was not fully appreciated, the improved means of reaching the prairies, and of communication with the undeveloped region of the west and south, gave rise to an emigration which threatened the depopulation of the New England and Middle States, and, in fact, has, in half a century, operated almost wholly to change the complexion of those sections so far as regards the nationality of a majority of their inhabitants. Emigration of the hardy and enterprising sons of the east, coupled with a better class of the foreign immigrant, created a population which speedily became homogeneous and developed a characteristic hitherto unknown in the old world or new, and which has since become the synonym for all that is embraced in the words "push," "energy" and "enterprise."

THE FIRST BOARD OF TRADE.

At the time of which we now treat, the membership of the Board of Trade of Chicago was largely composed of lumbermen, to whom a separate committee, having exclusive charge of all matters connected with the lumber trade, was accorded. A lumberman, Laurin P. Hilliard, was secretary, and A. G. Throop and W. D. Houghteling, both lumbermen, were upon the board of directors. Down to as late as 1858 George W. Noble, a planing mill operator, was elected vice-president, and lumbermen E. J. Tinkham and D. R. Holt were members of the board of directors. Nelson Ludington was on the committee of reference; B. S. Sheppard and L. P. Hilliard were members of the standing committee. The Board of Trade was first regularly incorporated in 1859, and its rooms at this time were on the northeast corner of South Water and La Salle streets. By an act of the legislature, which took effect February 8, 1849, entitled, "An Act for the Incorporation of Boards of Trade and Chambers of Commerce," it was provided "that any number of persons, not less than twenty, may associate themselves together as a board of trade, with authority to make such rules and regulations as are necessary for the government of the affairs which come under its control." Corporations formed under this act were not required to file articles of association anywhere, but no corporations other than boards of trade or chambers of commerce could organize under it.

The Board of Trade of Chicago worked under this act until its special incorporation in 1859, and some time about the year 1857 or 1858, the exact date being undetermined, because of the absence of any records bearing upon the subject, the lumbermen connected with the Board of Trade formed a separate organization, which they termed "The Lumberman's Board of Trade," of which Robert H. Foss was made president, and Nathaniel A. Haven secretary. Mr. Haven now resides at New Orleans, and from him we obtain a copy of the following circular, which, from its connection, we assume to have been issued about this time, but may possibly have reference to that later date when the Lumberman's Exchange was incorporated, the absence of data, and the lack of recollection of the facts on the part of any lumberman who has been consulted, rendering it uncertain, while the closing sentences seem to point to 1857-58 as the period referred to:

"The rapid increase in the volume of business, the constant succession of difficulties to be adjusted, differences to be settled and regulations to be made and enforced, demanded some bureaucratic administration differing from the aftermath of the Board of Trade floor. Hence a special act of incorporation was passed, vesting what were deemed the needful powers in the Lumberman's Board of Trade of Chicago, the incorporators being T. M. Avery, Eli Bates, Robert H. Foss, George C. Morton and Read A. Williams. The first president was Robert H. Foss, and the first secretary Nathaniel A. Haven. The first sessions were held in the Lind block, corner of Market and Randolph streets, and were diurnal from 10 o'clock A. M. to 2 o'clock P. M. These meetings were well attended for some time; but the financial difficulties ensuing upon the panic of 1857 deadened the activity of the organization, which was only kept in vitality by the commission men, who preserved the semblance of an organization and association by meeting annually and electing officers."

This circular or note of explanation was evidently issued some years after the circumstance to which it relates, and may have been issued for the purpose of awakening a new interest by a recital of the events of a previous period. Be this as it may, it comprises the only printed or written record of which we can learn with reference to the early organization. That it is in error in the statement that a special act of incorporation was obtained is evident from the fact that the only special act on record was that of 1869 to the Lumberman's Exchange. This, however, seems to have been the first formal attempt to reorganize in an association for the special purpose of regulating the lumber business, and was the precursor of the powerful and influential organizations of succeeding years, which will be described further along in this history.

The effects of the financial revulsion of 1857 were severely felt by the lumbermen of Chicago, as an illustration of which may be cited the experience of R. K. Bickford, then a member of the firm of Brewster, Bickford & Tildesly, with a yard on North street (now Sixteenth), corner of Lumber street. William Brewster, of that firm, manufactured about 12,000,000 feet at his mills in Oconto and 4,000,000 in Canada. The Chicago house purchased the whole cut of the Oconto mills, some of which it handled in its yard, and the balance it sold by the cargo to other dealers. Three vessels arrived about September 1, 1857, with flooring, fencing and siding strips, which were in quick demand at $14 per thousand, and the vessels hastened back to the mill for more. On September 7 the news of the failure of the Ohio Life & Trust Company, of New York, and its effect upon the banks and business interests of the east, was spread over the country, carrying consternation in every direction. On the 9th of September the three vessels returned to Chicago with their cargoes of Oconto lumber, but no one wanted it. For four days they lay at the dock without a single bid being made; on the fifth or sixth day John B. Edwards & Brother, jewelers, who had recently disposed of a stock of jewelry for cash, offered $7 per thousand for the three cargoes, and took them, unloading and piling the lumber on the north pier, where, after holding it for three years and until, by the decay of the cross boards, its value had greatly deteriorated, it was finally sold for $10 per thousand.

The dullness continued for several years, calling for the most strenuous efforts of all business men to avoid bankruptcy, and it was not until 1863 that a decided and favorable change for the better was manifested.

The panic of 1857 had spent its force, and the large additions to the list of dealers in 1859-60, with the many changes which occurred by the dropping out of old firms, was succeeded in 1860-61 by the depression growing out of the war cloud which was now hanging over the nation. The list of lumbermen was not greatly reduced in consequence, but the new additions and changed designations were less numerous than in former years.

As before remarked, the prospects of a war with the south operated, in 1860-61, most depressingly upon the lumber trade in common with all other classes of property, but, no sooner was it a settled fact, than lumber sympathized in common with its fellows in the marts of trade in the stimulating effects which the stirring times developed. Lumber advanced rapidly, and by the fall of 1862 it was held at an average of $3 to $4 above the prices of early spring, which were about those of the preceding year. It is difficult at this time to realize the causes of the rapid advance and abnormal demands, but, notwithstanding the withdrawal of nearly 5,000,000 men from the pursuits of peace, to engage in the destructive arts of war, business of all kinds prospered, and, with gold at a premium of from 200 to 240 per cent, the country was flooded with paper money, which, being issued by the government, had a stable character, and the readiness with which it could be obtained naturally induced habits of luxurious living hitherto unknown to the masses of the people. It is doubtful if, as a general rule, these habits so acquired have, or will in the future, prove of the highest advantage and benefit to all classes, but of one thing we are assured, that it has led to the development of a more aesthetic taste in many directions, and in none to a more marked extent than in the building world. Before the war none but the very wealthy contemplated the use of hardwoods in the finish of dwellings, or business houses; the hardwood dealers sought their custom and trade from the furniture or wagon factory rather than from the worker in house finish. In the evolution of trade, the use of hardwoods for interior finish, in doors, windows, stairways, base and mouldings, and no less in floors and mantels, has become so great that no building of any pretension is now erected without using it to a greater or less extent. At no time, however, in the history of the trade have the dealers endeavored to any great extent to mix the hard and soft woods in their yards, or if for a short time the experiment has been tried, it has soon been relinquished.

The period from the beginning of the war of the rebellion to the disastrous panic which overtook the country in 1873 was devoid of special features. Trade vacillated from year to year, or, rather, from spring to fall, according as money was more or less plentiful, and according as the winters afforded a larger or smaller crop of logs. The abnormal demands of the years immediately succeeding the war led to the construction of railroad lines into hitherto unknown regions. The west, from the lakes to the Pacific, was gridironed with iron tracks. These roads consumed immense quantities of lumber other than in railroad ties, and other lines of road were projected into the forests of the timber states to facilitate the work of the logger. Upon these lines of road saw mills were planted even before the rails were laid, as a result, each year has seen an abnormal and overabundant supply thrust upon the Chicago market to the detriment of the profits no less of the manufacturer than of the wholesaler and jobber. It is not necessary to go into the details of the historic fires which on October 8 and 9, 1871, destroyed so vast a section of the city. Fortunately, we are called to record comparatively small losses to the lumbermen on that memorable occasion, and it is questionable if we might not speak of it as a boom to them rather than as a loss. There were but few lumber yards in the track of the conflagration, while several manufacturing establishments were swept out of existence. Among the lumber yards destroyed were those of Jillett & King, located on Harrison and Fifth avenue; Mears, Bates & Co., Beach and Polk streets; H. N. Holden (hardwood), corner Jackson and Market; John Sheriffs & Son, 200 South Canal; Marsh, Chapin & Foss, corner Canal and Van Buren; Peshtigo Company, on the north pier; Street & Chatfield, Roberts street, between Huron and Superior; Davis & Mason, 236 South Water street; Addison Ballard, Market and Monroe streets, and Foss Brothers, at Van Buren and Canal. Of the manufacturers of sash, doors and blinds and planing mills, Peterson, Springer & Co., Bremer, corner Elm; D. Goodwillie, Kingsbury, corner of Ontario; J. Bartelme & Sons, 143-5 Larrabee; Jenck & Meyer, 343 Sedgwick; P. C. Campbell, 404 North Wells; James Farson & Son, 8-10 Market; T. H. & A. L. Brown, 208 East Van Buren; T. J. Roelle & Son, 351 South Canal. The loss of lumber aggregated in the neighborhood of 45,000,000 feet. At the same time that the conflagration was raging at Chicago, the forests of Michigan and, as well, those of Wisconsin, were suffering from forest fires to an extent which led many to believe that the sources of supply had been wiped out, and that Chicago could no longer look to either of the states named for what lumber would be required for her future trade.

At a meeting of lumbermen to consider existing conditions, the statement was made, upon what was for a long time considered reliable authority, that such was the case. So strong was this impression that congress was appealed to, and an act was passed admitting Canadian lumber to Chicago free of duty for the next two years. This act was not availed of to any extent, however, and we are unable to discover that a single cargo was sent to this port from the Canadian mills in consequence. That the ravages of the forest fires was extreme is shown in the complete wiping out of several saw mill towns both in Wisconsin and Michigan, while, happily, although vast extents of forest were burned over, necessitating its immediate conversion into saw logs to save it from the ravages of the worms, the ultimate extent of damage proved far less than had been feared.

In the case of the lumbermen, recuperation from their losses was rapid, and it is stated as a fact that before the first anniversary of the fire had rolled around their losses were fully made good. A strenuous endeavor was at once put forth to secure all the lumber possible that fall, and the receipts of the following year were nearly 150,000,000 feet in excess of any previous year, reaching in the aggregate 1,183,600,000 feet. The panic of the next year put a temporary damper on the lumber trade in common with all other branches of business, and, while the receipts continued practically as great in volume from year to year, it was not until 1879 that the dealers felt encouraged to believe that the sun of prosperity was again dawning upon them.

The succeeding years were fairly prosperous ones in the lumber trade, leading on to the great prosperity which has of later years prevailed. In the meantime the trade which for so long had been confined to the use of the forest products of only the states of Michigan and Wisconsin, with some hardwoods from Indiana and Ohio, and poplar, black walnut and oak from Tennessee and Kentucky, began to reach out and obtain the products of every portion of the land. It was not until 1884 that southern pine began to get a foothold in the Chicago market, although small stocks of flooring had been kept by a few of the hardwood yards, yet not to an extent entitling that timber to be named as a staple of the market. In that year, however, Frederick W. Norwood and J. S. Butterfield, forming the firm of Norwood & Butterfield, which, later, became a corporation, opened a yard for the exclusive sale of southern pine lumber and timber, and, although meeting with but indifferent success for a year or two, persevered, and soon had competition in a rapidly growing business, which, in 1892, reached to the extent of nearly 100,000,000 feet. During the same year the California Red Wood Company of Humboldt, Cal., appointed Everitt S. Hotchkiss their agent at Chicago for the introduction of California redwood lumber and shingles, of which about 100,000 feet of the former and 500,000 of the latter were sold before the company, meeting with embarrassment, its shipments ceased, when Hooper & Co. of Humboldt essayed to build up a trade, but with indifferent success, although several dealers in pine and hardwood kept small stocks on hand. About 1885 the firm of Ruddock & Seymour introduced the cypress of the south, which has constantly grown in favor and is looked upon as one of the standard articles of the lumber yard.

With the decadence of the forests of Michigan, hemlock, which had hitherto been wholly neglected, became a common article of trade, increasing each year in volume and taking a well-deserved position in the building world. With the extension of a large number of railroad lines into the forests of Wisconsin, an increasing proportion of the lumber trade of Chicago has its inception in the interior of that State, and less dependence is placed upon the mills on the lake shore of Michigan and Wisconsin. About 1887-88 James Fraser, a commission dealer, inaugurated a trade in the fir of the Pacific coast, obtaining his supplies of long timber, including bridge timber and car sills, from Oregon and Washington, and this, with the introduction of the red cedar shingles of the coast, has proved the beginning of a considerable trade, which bids fair to develop in the ratio of a wise reduction in rates of freight from the western coast, but, in the case of shingles, has already obtained large proportions.

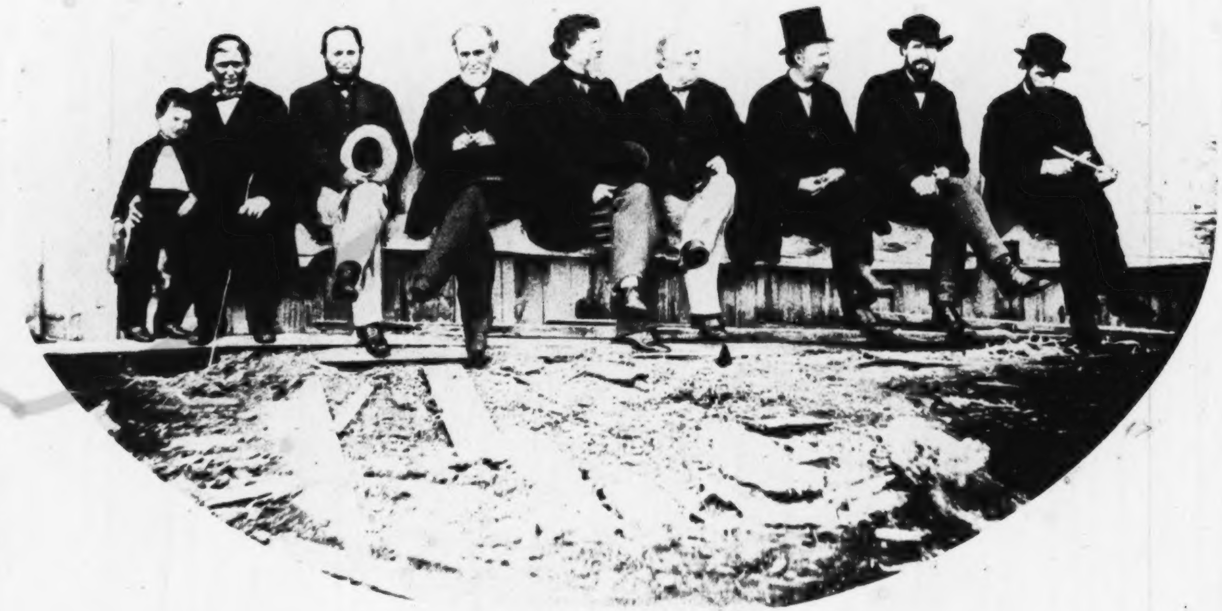
At present, and for many years past, the Chicago market has developed an increasingly cosmopolitan character as regards her sources of supply. From the line of the lakes comes the pine, cedar, hemlock, oak, ash, beech, maple and other hardwoods of Michigan, Wisconsin and Minnesota, and we might add Canada, although the receipts from the province, even when, after the fire of 1871, the tariff laws were suspended for a time, have never proved an alarming factor in the competitive race. By rail the north and the northeast bring the same varieties from the interior of Michigan and of Wisconsin, while the lines to the northwest, west and south bring the black walnut, poplar, oak, ash, hickory and yellow pine of the coterie of states ranging from Iowa on the north to Florida, Texas and Mexico on the south, while the fir of Oregon and Washington and the redwood of California find resting place in the yards beside the white and yellow cedar of the lake country and the red cedar of the Pacific coast. No market on the face of the globe can compare with Chicago in the varieties and extent of her timber supply.

It has erroneously been asserted that a chartered institution known as the "Lumberman's Board of Trade" existed before 1869, but, from what has already been stated, it is certain that the only association prior to that date was organized under the law of 1848, which conveyed but slight privileges. As members of the Chicago Board of Trade, after its general incorporation in 1849, the lumbermen had a committee of their own number to look after the interests of the trade. When, in 1859, the Chicago Board of Trade obtained a special charter, the lumbermen decided to associate under the general law, and maintained their organization to a greater or less extent for the next ten years, but neither record nor legend credits the organization with any great amount of benefit to the trade.

No records are to be found, and none are believed to exist, of any action, either as a committee of the Board of Trade, nor yet of the Lumberman's Board of Trade, from its organization in 1859, to the incorporation of the Lumbermen's Exchange in 1869. That an organization was kept alive, although in a dormant condition, is satisfactorily evidenced by circumstances in the election in 1859 of Robert H. Foss as president; Eli Bates, vice-president, and Nathaniel A. Haven, secretary, and their re-election in 1860, after which neither history nor legend point to any work accomplished by the organization until after the war. In 1866 an effort was made to revive the association, and Artemas Carter was elected president, George C. Morton vice-president, and John Garrick secretary, and the same parties were re-elected in 1867. For 1868 Jesse Spalding was elected president, George C. Morton vice-president, and William L. Southworth secretary. In 1869, by special act of the legislature, the Lumberman's Exchange was incorporated, and Thomas M. Avery was elected president, W. D. Houghteling vice-president, and W.

A GROUP OF OLD-TIME LUMBERMEN OF MENOMINEE AND MARINETTE.

(FROM A PHOTOGRAPH TAKEN IN 1864.)



1. YOUNG JOHN SPALDING.
2. JUDGE INGALLS.
3. JESSE SPALDING.
4. NELSON LUDINGTON.
5. DANIEL WELLS.
6. DOCTOR HALL.
7. ABNER KIRBY.
8. ISAAC STEVENSON.
9. —— SIMONS (of Milwaukee).

L. Southworth secretary. For 1870 and 1871 W. D. Houghteling was president, and Mr. Southworth secretary, an office he continued to hold until 1875. No vice-president seems to have been required in 1870-71, but Augustus G. Van Schaick became treasurer, and continued to hold the office until 1886, except for the year 1874, when John J. Borland was elected.

During its earlier years the work of the association was but of a desultory character, but in 1874 a deeper interest became manifest, and with the election of George B. Stockbridge as permanent secretary, systematic efforts were made to compile statistics of stock on hand in the yards at the beginning of each month, and also of the daily and yearly receipts of lumber in the city, and from this time the Lumberman's Exchange began a career of useful prosperity in advancing the interests of the Chicago trade, which now boasted receipts of over 1,000,000,000 feet per year. A. H. Hitchcock succeeded Mr. Stockbridge in the secretaryship in 1879, and he in turn was succeeded in 1881 by G. W. Hotchkiss, and for the next six years the exchange was recognized as of but secondary importance to the commercial interests of Chicago, being exceeded only by the Chicago Board of Trade.

During 1881 a series of monthly lunch gatherings, for the consideration of price lists, added to the *esprit du corps*, and, these being continued at varying intervals for several years, the utmost harmony prevailed, while the volume of receipts had continually increased, until those of 1882 reached a volume of 2,116,341,000 feet of lumber and 1,185,108,000 shingles. At this time the number of dealers in the yard trade of Chicago was 115; hardwood dealers, thirty-two, and of manufacturing, wholesalers and commission men there were 137, a total of 284 firms and individuals engaged in the Chicago lumber trade. An analysis of the Chicago business in lumber for a number of years showed the following results:

LUMBER.

YEARS.	Receipts of Year	Inventory Jan. 1.	Total Resources of the Year.	Disposed of during Year.	Percentages. Left over.	Percentages. Disposed of.
1879..............	1,483,008,322	410,773,860	1,893,782,182	1,442,500,123	25 5/6	76 1/6
1880..............	1,522,431,000	451,282,059	1,973,713,059	1,475,872,386	23 1/4	74 3/4
1881..............	1,906,639,000	497,840,673	2,404,479,673	1,844,062,831	23 3/10	76 7/10
1882..............	2,116,341,000	560,416,842	2,676,757,842	1,974,543,655	26 1/4	73 3/4
1883..............	1,897,815,000	698,254,659	2,586,069,657	1,906,592,356	26 2/3	73 1/3
1884..............	1,802,727,000	679,477,301	2,482,204,301	1,789,031,939	20 93/100	72 6/7
Total.........	10,728,941,322	....	14,017,006,741	....		
			General average	for six years.....	25 5/8	72 7/10

SHINGLES.

YEARS.	Shingles Received.	On hand Jan. 1.	Total Resources of the Year.	Disposed of during Year.	Percentages. Left over.	Percentages. Sold.
1879..............	683,574,000	200,750,500	884,324,500	694,267,500	21 1/2	78 1/2
1880..............	650,922,500	190,057,000	840,979,500	652,257,500	22 1/3	77 2/3
1881..............	866,075,000	188,722,000	1,054,797,000	793,890,506	24 3/4	75 1/4
1882..............	954,549,000	260,906,494	1,215,455,494	909,758,144	25 1/10	74 8/10
1883..............	1,185,108,000	305,697,350	1,490,905,350	1,024,227,854	31 3/10	68 7/10
1884..............	895,528,000	466,677,496	1,362,205,496	1,007,458,385	26	74
Total.........	5,235,756,500	....	6,848,667,340	....		
			Per cent	for six years	25 4/5	74 1/5

When the mind recurs to the opening pages of this history, the conditions evidenced by the receipt of perhaps 30,000 feet in Chicago in the year 1833, contrasted with receipts of 2,116,000,000 feet in 1883, and 2,250,000,000 in 1892, a general production of 32,000,000,000 feet throughout the nation in 1892, of a value, at a low calculation (including coarser forest products), of $1,000,000,000, it taxes the credulity of intelligent minds to conceive that the change has taken place in but little over half a century, or that so vast a trade is comprised in a single branch of the nation's commerce. None other equals it. And this vast source of national wealth, like iron and coal, is the gift of nature to our favored land.

At the sixteenth annual meeting of the Exchange, March 2, 1885, Secretary Hotchkiss gives some data which will give a clearer view of the immensity of the lumber trade of Chicago at this time:

From this it will be seen that the trade of Chicago took about twenty-two and a half per cent of the lumber product of the northwest for the year 1884; that the lumber sales of the Chicago yards for the past six years averaged 74.42 per cent of the yearly receipts, and that the sales of 1884 were about two per cent below the general average, the shingle sales being but one-fifth of one per cent below the general average of the past six years. Of the lumber cut of the northwest, including Michigan, Wisconsin, Minnesota and the Mississippi river, dividing the region into three districts, viz: the eastern, the central and the western, the first embracing Michigan and a portion of the northern peninsula, the central including the territory tributary to Chicago west to the Wisconsin river, the western including all west of the Wisconsin river, I find the following percentages of handling and trade: Total production, 7,935,033,054 feet; eastern district, 2,700,734,693 feet, or 34.3 per cent; central district, 2,700,000,000 feet, or 34.2 per cent; western district, 2,534,298,361 feet, or 31.4 per cent. The eastern district markets its product principally in the east and southeast, the central district, with Chicago as its center, supplying the south and southwest, largely competing with the western district for the trade of the west and northwest. When we further consider that the production of lumber has increased in six years from a reported 4,806,943,000 feet in 1879 to 7,935,033,054 feet reported in 1884, the enormous drain upon our timber resources will be appreciated. In considering the importance of Chicago in handling so large a proportion of the total cut of each year, it is only necessary to bear in mind that it represents a concentration at one point of the central district, as distinguished from a multitude of operators scattered over a vast area of territory in each of the other divisions.

About 1883-4 the hardwood merchants of the city began to take an interest in the work of the Exchange and to the number of about forty firms joined the organization, subsequently (1888) withdrawing and forming a separate organization. During these earlier years the first written rules for the inspection of hardwood lumber were promulgated, and, with revision from time to time, formed the basis upon which all similar rules have been based in the hardwood trade of the nation.

In 1890 changed conditions of trade led to the reorganization of the Exchange, which, in 1891, adopted new articles of incorporation under the cognomen of "Lumberman's Association," and as such continues to the present time, Edwin E. Hooper being secretary, an office which he has held since 1889. The work of the association has for several years been more particularly devoted to an adjustment of freight matters, and the membership has declined to but a minimum of the importance which it enjoyed between 1880 and 1890.

The lumber trade of Chicago has for many years ranked as of greater extent than that of any other section or locality in the nation, and the following table evidences its growth and progress from its earliest history to the present time:

Table showing Receipts and Shipments of Lumber and Shingles, with Population of Chicago from 1831 to 1897.

YEAR.	RECEIPTS.		SHIPMENTS.		
	Lumber.	Shingles.	Lumber.	Shingles.	Population.
1831	...	...	...	...	60
1832	...	...	...	...	‡‡600
1833	30,000	...	...	...	350
1834	500,000	...	...	...	‡1,800
1835	1,500,000	...	...	...	3,265
1836	2,250,000	...	...	...	4,000
1837	3,000,000	...	...	...	4,170
1838	3,500,000	...	...	...	4,000
1839	4,200,000	...	...	...	4,200
1840	4,479,000	...	...	...	4,470
1841	5,752,000	...	...	...	5,500
1842	6,248,000	...	...	...	6,590
1843	7,561,742	...	...	...	7,580
1844	19,226,885	...	...	...	8,000
1845	22,593,992	(500 Feet	Black Walnut.)	...	12,088
1846	27,000,000	...	...	...	14,169
1847	32,118,225	...	12,148,500	...	16,859
1848	60,009,250	14,425,357	20,050,000	17,899,000	20,023
1849	73,259,553	26,882,000	39,057,770	35,551,000	23,047
1850	100,364,779	38,687,528	55,423,750	51,484,000	28,269
1851	125,056,437	56,510,051	60,338,250	67,032,000	34,000
1852	147,816,232	70,740,271	77,080,500	...	38,734
1853	202,101,078	88,909,348	93,483,784	...	60,662
1854	228,336,783	133,131,872	82,061,250	...	65,872
1855	306,547,401	215,585,354	108,647,250	...	80,023
1856	456,673,169	243,387,732	135,876,000	...	86,000
1857	459,639,198	311,608,793	131,830,250	154,827,750	93,000
1858	278,943,000	242,793,268	127,894,000	...	90,000
1859	302,845,207	226,120,389	165,927,000	...	95,000
1860	262,494,626	225,372,340	127,894,000	...	112,172
1861	249,308,705	189,379,445	79,356,000	...	120,000
1862	305,674,045	189,277,079	131,250,000	...	138,135
1863	413,301,818	221,709,330	172,364,875	...	160,000
1864	501,592,406	269,496,579	190,169,750	...	169,355
1865	647,145,734	385,353,678	310,897,350	...	178,900
1866	730,057,168	422,314,266	400,125,250	...	200,413
1867	882,661,770	518,903,354	447,039,275	...	220,000
1868	1,028,494,789	551,989,806	514,434,100	537,497,074	252,054
1869	997,736,942	581,533,480	673,166,000	638,317,840	280,000
1870	1,018,998,635	583,490,634	652,091,000	666,247,775	298,700
1871	1,039,328,375	541.222,543	647,595,000	558,385,350	324,270
1872	1,183,659,280	417,827,375	610,820,420	436,827,375	367,396
1873	1,123,368,671	561,544,379	517,923,000	407,505,650	380,000
1874	1,060,088,708	580,673,674	619,278,630	370,196,659	395,409
1875	1,157,194,432	628,485,014	635,708,000	299,427,000	407,000
1876	1,039,785,265	576,124,287	566,978,000	214,389,750	420,000
1877	1,083,405,362	586,442,000	546,780,825	179,214,500	439,976
1878	1,179,814,119	626,746,676	692,549,000	123,221,025	450,000
1879	1,485,008,322	683,574,899	§1,442,500,123	694,267,500	480,000
1880	1,524,431,000	650,922,591	§1,475,872,386	652,257,500	503,185
1881	1,906,639,000	953,285,000	1,844,065,531	793,890,506	...
1882	2,116,341,000	954,549,000	1,974,543,655	909,758,144	560,693*
1883	1,897,815,000	1,185,108,000	1,906,592,356	1,024,227,854	...
1884	1,802,727,000	895,528,000	1,789,031,939	1,007,458,385	629,985†
1885	1,744,699,000	770,727,000	1,702,291,642	662,240,000	750,000*
1886	1,660,589,000	775,725,000	1,722,246,629	678,562,340	803,817*
1887	1,846,187,000	612,990,000	1,844,961,282	665,714,900	...
1888	2,012,069,000	629,685,000	1,925,217,899	643,513,500	902,651*
1889	1,930,227,000	637,377,000	1,944,131,462	637,376 595	...
1890	1,969,689,000	524,440,000	2,098,547,560	603,565,530	1,099,850
1891	2,087,462,000	310,168,000	2,142,593,214	463,351,811	...
1892	2,250,298,000	413,266,000	2,312,517,732	371,588,650	1,320,000
1893	1,621,627,000	317,400,000	1,647,966,053	376,216,905	1,500,000*
1894	1,555,055,000	328,513,000	1,535,946,290	328,212,925	...
1895	1,672,712,285	460,793,000	1,680,407,110	486,739,200	...
1896	1,270.939,000	256,124,000	1,351,257,907	302,230,275	...
1897	1,415,623,000	371,864,000	1,405,352,586	356,592,850	1,883,000*
Total	52,555,791,398	22,058,747,372			

*Est. †School. ‡Includes Indians. ‡‡Includes Soldiers. §Includes City Consumption previously omitted.

NOTE.—The by products of the forest received at Chicago in 1897 consisted of: Posts, 2,268,583; Telegraph poles, 102,495; R. R. Ties, 2,814,321; Lath, 43,118,000; and are named only as an index of the extensive trade of the city in these various articles.

CHAPTER XLVI.

PERSONAL SKETCHES OF CHICAGO LUMBERMEN.

HENRY and Jacob Beidler are frequently mentioned in connection with the manufacturing concerns of Muskegon in 1860. The business of this company was established at this point in the year 1855. The Beidler brothers sprang from one of the old Pennsylvania Dutch families, which settled in Bucks county, Pennsylvania, at an early day, the father and grandfather of the brothers having been born in Bucks county, both being named Jacob. The father was a carpenter by trade, which he followed in connection with farming. He was a man of great strength, both mentally and physically, and living to the ripe age of eighty-nine years, imparted to his sons those qualifications of honest living, which enabled each to reach an equally ripe old age, and to pass away beloved and respected by all who, during nearly an entire century, had admired the energy, honesty and business acumen which was a characteristic of each. Upon the mother's side was also found the seeds of longevity, Susanna (Krout) Beidler, their mother, having lived to the age of eighty years.

The early days of the brothers were passed upon their father's farm, and each was given as good a common school education as was feasible in that early period. Henry, the eldest of the brothers, was born November 27, 1812, and Jacob in December, 1815. With the attainment of manhood, each for a period followed the occupation of farmers, Jacob also learning the trade of a carpenter and cabinetmaker, allied trades in that early day. In 1842 the brothers left the home region and went west, Henry to settle at Springfield, Ill., where he engaged in the grocery business, which he followed until 1848, Jacob settling at the young hamlet called Chicago, where he opened a shop in pursuance of his trade, after spending one year with his brother at Springfield and in connection with one Daniel Barnes under the name of Beidler & Barnes, grocers; selling his interest to his brother and returning to Pennsylvania for his bride, Miss Mary Ann Funk, who, in 1844, returned with him to Chicago for what proved the remainder of their lives. Reaching Chicago in August, 1844, Jacob found employment with Van Osdel Bros. & Thorp, carpenters, and a year later established a business of his own in connection with James McGee, under the firm name of Beidler & McGee. In 1846 he bought out his partner, and continued the business until in 1847, when he opened a lumber yard on West Water street, between Randolph and Lake streets, where he laid the foundation for what in later years became one of the most extensive operations in that line in the city. In connection with this business, which in that day was of but limited extent, he continued to carry on the trade of a carpenter and builder, and was the first in Chicago to introduce machinery for the manufacture of sash, doors and blinds. In 1850 he sold out his shop to James Lyon, and devoted his time to his lumber business, having in 1848 been joined by Henry, his brother, who sold out his Springfield business for that purpose, and became a member of the firm of Beidler Brothers.

Prospering with the passing years, the brothers in 1854 decided to enter into the manufacturing branch, and decided upon Muskegon as the most promising point for their enterprise, and erected a mill containing one mulay and one circular saw, with capacity for the manufacture of about 20,000 feet per day. This mill was operated until its destruction by fire in 1872; it was not rebuilt. Of this operation Henry Beidler took charge, and for many years was recognized as one of the most stirring and enterprising men of the city. With improvements in saw mill machinery, new devices were added to a second mill, erected in 1866, which contained a double circular and gang, and the records of 1874 name this mill as having a capacity estimated at 25,000,000 feet per year. The mill at this time employed seventy-five men, and its cut in 1874 was reported at 16,000,000 feet; that of 1875 raising the figures to 23,000,000 feet.

Henry Beidler remained at Muskegon in charge of the manufacturing operations until 1876, when he returned to Chicago, and continued to reside in that city until his death, March 16, 1893. Upon the inception of the mill enterprise in 1854, A. F. Hathaway was admitted to the firm, which now became J. Beidler, Brother & Company, and later another brother, Aaron, was admitted, the firm name continuing as before until 1856, when Aaron retired, as did Mr. Hathaway; and M. J. Brown and R. P. Easton were admitted, and continued until 1860, when they, too, withdrew, leaving the firm to be known as J. Beidler & Bro. until 1871, when articles of incorporation were taken out for the Beidler Manufacturing Co., of which Jacob Beidler became president. The business of the company prospered, both in the manufacturing branch at Muskegon and in the wholesale business at Chicago, Henry Beidler continuing to have charge of the Muskegon business, which in 1870 reported a manufacture of 18,000,000 feet of lumber, which, with improvements to the machinery and facilities for manufacture, was increased in 1882 to 30,000,000 feet of lumber, 15,000,000 shingles and 10,000,000 lath. During these years Jacob Beidler remained at the head of the Chicago business, Henry remaining at Muskegon until 1876, and, after returning to Chicago, continuing his connection with the company until 1882, when

Walter Shoemaker

he retired from active connection with the business, as did M. F. Rittenhouse, who had been for many years treasurer of the company, and W. H. Beidler, son of Jacob, became secretary and treasurer. In 1873 Jacob Beidler organized the South Branch Lumber Co. of Chicago, with himself as president, B. F. Ferguson treasurer, and Francis Beidler (son of Jacob) secretary. This company did a separate business from that of the Beidler Manufacturing Company, and was for many years one of the largest among the wholesale lumber houses of Chicago. The business at Muskegon was continued until 1884, when a cut of 10,585,846 feet of lumber and 500,000 shingles is recorded, a decrease of 6,000,000 feet from the last previous report. The mills, which consisted of two circulars and one gang, were not operated in 1885, and from that time cease to be represented in the annual reports of production. The Beidler brothers were accounted among the solid men of both Muskegon and Chicago, the term being used not more as indicative of commercial and financial success than as referring to their usefulness as enlightened citizens, interested in all projects for the advancement and growth of the cities in which they had taken up their residence.

The sterling honesty and worth of both Jacob and Henry caused them to be held up as patterns to be emulated by a rising generation. After his retirement from business, Henry Beidler traveled extensively throughout this continent and to the Bahamas, and during his journeyings he was greatly interested in the collection of rare shells and other curiosities, of which he formed an extensive and valuable cabinet. In politics he was a Republican, but never aspired to office holding, while deeply interested in every movement looking to greater purification in political methods. With his family he was identified with the People's church of Chicago, to the interest and advancement of which he was most zealous up to the time of his death, which occurred at Chicago.

Mr. Beidler was married April 23, 1860, to Miss Sarah Sammons of Syracuse, N. Y., who died October 2, 1886. She was a woman of rare virtues, a devoted wife and mother, whose pure life and constant charities endeared her to a vast circle of friends. She bore Mr. Beidler one son, Herbert A. Beidler, of Chicago.

Jacob Beidler was not only accounted one of the pioneers of Chicago, but one of its most enterprising citizens. With the accumulation of wealth he became one of the largest individual holders of property in the city, which he improved by the erection of many handsome blocks of buildings, principally consisting of manufacturing and residence constructions. In his impulses he was most charitable, while yet his beneficences were seldom made a matter of publicity. Particularly was he interested in educational institutions, believing that the proper education of the youth of the land was of the first importance in forming the character of its future citizenship. His gifts to Lake Forest University, a Presbyterian college, were especially munificent, as was eloquently portrayed by the Rev. Dr. McClure upon the occasion of the funeral obsequies. To the Jefferson Park Presbyterian church of Chicago he was a most devoted friend and most liberal giver, while in innumerable ways his beneficences, quietly and unostentatiously bestowed, brought cheer, comfort and courage to many a struggling and helpless soul. The soul of honor himself, he heartily despised cant and hypocrisy, and by his daily life exhibited those noble traits which marked the Christian gentleman. His death occurred in March, 1898, from the general breaking-up incident to old age, accentuated by an attack of pneumonia. His surviving children, five in number, are: Augustus F., Francis, Emma, David and George. Mrs. Beidler survives her husband, rich in the affection of the vast circle of friends who for nearly half a century have been her associates. Mr. Beidler was a Republican in politics, but never solicitous for office. At one time induced to accept the office of an alderman, his faithful service caused his constituents to secure his continuance for a second term, and in this position he displayed that unswerving devotion to the interests of the city which marked the entire period of his business career. The long and eventful history of the Beidler brothers in its example of usefulness, integrity and devotion to the principles of right, both in business and private life, are worthy of the emulation of all who may read this brief history of their honorable careers.

Francis Beidler.—Francis, third son of Jacob Beidler, and for many years secretary of the South Branch Lumber Company, until its withdrawal from the city trade, is another illustration of heredity in business, he, like his brothers, who are also lumbermen, following in the footsteps of the honored sire who was for fully fifty years closely connected with the lumber trade of Chicago.

"Frank" Beidler was born in Chicago in 1855, and educated in the schools of the city, entering the lumber office of J. Beidler & Bros. at the age of sixteen, taking advantage of the dullness of business in winter to take a full course in the Bryant & Stratton Business College. After two years' service in the office and yard of his father and uncle, the South Branch Lumber Company was formed (1874), and "Frank" became secretary, an office which he held continuously until its dissolution. During this time Mr. Beidler has filled a not unimportant position of influence in the trade of the city, being esteemed a young man of good judgment, combined with the pluck and push of a true son of Chicago, and the company with which he was connected has been numbered among the largest dealers of the city, having branch yards through many sections of the west in Dakota, Kansas and Nebraska. The dissatisfaction of the yard dealers with the policy urged by the manufacturers and commission dealers, members of the Lumberman's Exchange, is a matter of history as culminating in 1887-88, leading to frequent independent meetings of the yard dealers for the consideration of a price-list, freight tariffs and other matters of interest to the trade, and these meetings were held in offices and, on some very hot days in summer, under the lumber sheds of some of the dealers, resulting after a time in a permanent organization known as the "Lumbermen's Association." To this Mr. Beidler was elected the first permanent president, an office accepted by him only upon the pledge of the membership to a broad and liberal policy, none but yard dealers being admitted to membership. Under his administration successful steps were taken to remedy many of the freight rate evils which had long existed, and with such good effect that an amalgamation was finally effected with the Lumberman's Exchange, by which the advantages of the liberal charter of that institution were availed of, and the association has since been doing a most excellent work for the benefit of the trade. Mr. Beidler occupied the position of president, for two years, of the Lumberman's Mutual Insurance Company, a young but highly prosperous organization, taking risks only upon lumber yards, a species of risks which has in the past called on insurance companies for but limited losses, but has been made subject to excessive premiums. Later historians will no doubt be able to show a decided reduction in rates, in consequence of this organization, the conception of Mr. Beidler.

Mr. Beidler is also vice-president of the Lumberman's Building and Loan Association, an organization which in a few years of growth has attained an enviable reputation for substantiality. In the closing out of the South Branch Lumber Company, Mr. Beidler still retains his interest in a system of lumber yards, forming a chain twenty-five in number, in North Dakota, known as the Beidler & Robinson Lumber Company, as well as in a large number of yards in Kansas and Nebraska. He is also connected with the Eastern Lumber Company of Tonawanda, N. Y., doing a large business in wholesale and retail distribution, and of the Santee Cypress Lumber Company of Ferguson, Berkley county, S. C., which, with two band mills and a full complement of planing mill and moulding machinery, is introducing the excellent yellow cypress lumber of the south into the northern market.

This, however, is not a sufficient supplement to the extensive business carried on by Mr. Beidler for so many years, and it is little wonder that in 1894 he should again be found in active touch with the Chicago trade, under the designation of Francis Beidler & Co., with offices in the Old Colony building, and yards, comprising 1,100 feet of dock frontage, on Mason slip, foot of Fisk street, south of Twenty-second, to which point his office has since been removed.

Mr. Beidler was married March 8, 1893, to Miss Elizabeth M. Loose, an estimable lady of Springfield, Ill.

Mr. Beidler, although still a young man, has already made an enviable mark in the business world, and is highly respected as a straightforward and intelligent business man, and his relation to the welfare of the city is shown in his choice as vice-president of the Citizens' Association, an organization having special reference to the development and good government of the city.

Walter Shoemaker of Chicago, while more prominently known in connection with the wholesale yard trade of Chicago, has yet been for many years prominently connected with the manufacture of lumber at various points in the northwest, both as a logger and as the purchaser of large quantities of log stock, which he caused to be manufactured at the mills of various sections, thus becoming closely identified with the manufacturing interests of both Michigan and Wisconsin.

Mr. Shoemaker was born in Montgomery county, N. Y., in 1839. He was educated at Fort Plains Seminary and Rochester Commercial College, and at the age of twenty years came west to Illinois, and spent three years in the employ of a dry goods firm. The three years sufficed in this occupation, and in 1861 he entered the office of Hackney & Gardner, lumber merchants of Aurora, Ill., remaining with them for two years in the capacity of bookkeeper. In 1863 he entered into partnership with Isaac M. Howell, and for ten years the firm of Howell & Shoemaker did a thriving lumber business in a retail yard at Aurora. But Aurora was too slow, and its trade too limited to suit the energetic temperament and aspirations of a man whose business so often called him to Chicago, that he was thoroughly impregnated with the Chicago spirit of enterprise, and, selling out his business to his partner in 1872, he went to Chicago and formed an alliance with Spooner R. Howell, son of his former partner, and the firm of Shoemaker & Howell established a yard, for the wholesaling of lumber, on the corner of Throop and Twenty-second streets. This partnership continued for five years, expiring, by limitation, in 1877. During this period Mr. Shoemaker, in connection with Bigelow Bros. of Chicago (manufacturers at Muskegon, and later of Washburne, Wisconsin), put in, during the years 1873-4-5, the first logs which were put into Houghton lake, on the head waters of the Muskegon river, and had them manufactured at Muskegon mills. This was his first venture as a manufacturer. Upon the expiration of the partnership of Shoemaker & Howell, Mr. Shoemaker, having sold his interest to his partner, started a yard for himself on the corner of Ashland avenue and Twenty-second street, a location which he occupied until 1886. During this time Mr. Charles D. Bull, who for some years had been bookkeeper for the former firm, was admitted to partnership, and the firm became Walter Shoemaker & Co.

In 1879-80 Mr. Shoemaker was among the Chicago lumbermen who became pioneers in developing the timber resources of the Lake Superior region, and was among the first to have logs manufactured in any quantity in the Ashland district of Wisconsin, whence he shipped about 10,000,000 feet to his Chicago yard, being among the first stock shipped from that section to the Chicago market. About 1883 he entered the field newly opened by the building of the Milwaukee, Lake Shore & Western railroad, operating heavily at Deerbrook, Antigo and Bryant, shipping the manufactured product by rail to Chicago, and since that time has had extensive operations at Sterling and Athens on the line of the Wisconsin Central railroad. In 1887 his Chicago yard was removed to the north branch of the river, at the west end of North avenue bridge, where it remained until finally closed out in 1891, at which time the company was merged with the Antigo Lumber Co., formed in 1882, and the two companies have since been known under the designation of Walter Shoemaker & Co. The operations of this company have been extensive in the manufacture, purchase and sale of vast quantities of lumber, sold by wholesale, and manufactured at mills in Michigan, Wisconsin and Minnesota. In 1892 Mr. Shoemaker became interested, to the extent of three-fifths of its stock, in the Shoemaker & Higby Company of Chicago, organized to deal exclusively in square timber of larger dimensions than is usually comprehended in a retail lumber yard, but requisite in the construction of such enormous structures as are the outcome of modern ideas of building as developed in Chicago, including timbers of twenty-four and twenty-eight inches square, by as high as 130 feet in length, the stock for which was obtained from the extraordinary Douglas fir of the Pacific coast, smaller sizes and shorter lengths being obtained from the mills of Michigan and from the rapidly developing manufacture of the yellow pine of southern forests.

Mr. Shoemaker was married in 1864 to Miss Kate Shull of Montgomery, N. Y., and has one child.

Of eminently social and genial disposition, Mr. Shoemaker was for several years a trustee and vice-president of the Illinois club, one of the most prominent social clubs of Chicago, and in 1895 was elected to its presidency, an honor coveted by its members as one of high distinction. He was for two terms elected a director in the Lumberman's Exchange of Chicago, at a time when the exchange ranked only second to the Board of Trade in its commercial importance. He is a member of Garfield lodge No. 686, F. & A. M.; of York chapter No. 148, R. A. M., and of Columbia commandery No. 63, Knights Templar; he is also a member of Medina temple, A. A. O. N. M. S. of the Shrine. No man ranks higher as a citizen, and none enjoy a higher meed of esteem as a wide-awake and progressive lumberman, and one who is the soul of honor.

James H. Pearson.—Many of the more extensive wholesale lumber dealers of Chicago were at one time or another engaged in the manufacture of the lumber which formed their Chicago supply, finding greater profit in handling from the log in the forest, to the manufactured product, than in the purchase of manufactured stock. Of this class of lumbermen James H. Pearson was a conspicuous example, his manufacturing operations being at Saginaw, Michigan, Manistique in the upper peninsula, and other points.

Mr. Pearson sprang from New England stock, having been born at Haverhill, New Hampshire, December 10, 1820, and, like all New England boys, was accorded a good common school education, supplemented by a course at Haverhill Academy, after which he entered the employ of a dry goods house in Boston, where he remained for two years, and in the course of which time he learned, as so many young men are forced to learn, that he had left school too soon, and wisely secured permission from his parents to spend another year in the academy, where his increased diligence was rewarded by that greater preparation for a successful business life.

His father had a saw mill in connection with his occupation as a farmer, and meeting with financial disaster in the panic of 1837, the sons of the family rented the farm and mill and succeeded in keeping the family together. In 1850 Mr. Pearson was married to Miss Sarah Elizabeth Wetherell of Haverhill, and engaged in business at South Hadley, Mass., for a time, but shortly after sold out and turned his face westward, reaching Chicago in July, 1851. His experience in a saw mill and the handling of lumber, although upon a small scale, had fitted him to see bright prospects in the prosecution of a lumber business in Chicago, and bringing with him a letter signed by a number of the leading citizens of his native town, headed by Governor John Page of New Hampshire, certifying to his trustworthiness and business qualification, both as a man and in his knowledge of the lumber business as transacted in the east, he had no difficulty in obtaining from the firm of Chapin & Butts the requisite stock for opening a lumber yard at Henry, in Marshall county, which he conducted until the spring of 1853, when he sold out the business and returned to Chicago.

The business of that day and locality included a grain business, both by purchase and in exchange for lumber, and its purchase in the cob, shelling and shipping by canal to Chicago, led to the handling of large quantities of corn. On his return to Chicago he formed a partnership with Col. Josiah L. James, and the firm of James & Pearson opened a lumber yard on Clark street, near Twelfth street, renting from Hugh Mayher, who a year later purchased the interest of Col. James in the business, and for one year the firm of Mayher & Pearson continued, at the end of which time Mr. Pearson sold his interest, and, in connection with William T. Powers, a lumber manufacturer of Grand Rapids, Mich., organized (1855) the firm of J. H. Pearson & Co. This firm opened a yard at the corner of Madison and Market streets (now in the general wholesaling center of Chicago). In 1857 the yard was removed to the west side of the river, and the firm of Pearson & Messer was instituted, Mr. Powers withdrawing; Mr. Messer dying soon after, his interest was purchased by Webster Bachelder, and the new firm of Pearson & Bachelder returned to the old location on Madison and Market streets. This firm built up a large business until the spring of 1862, when Avery, Murphy & Co. purchased the Bachelder interest, and the firm became Pearson, Avery & Co. This firm now removed the yards to Stowell slip, near Twelfth street, where they secured 1,000 feet of dock frontage and established one of the largest and most successful yards in the city. In 1865 Mr. Pearson purchased a half interest in a saw mill at Saginaw City, Mich., and, in connection with A. W. Wright, formed the firm of A. W. Wright & Co., manufacturers at Saginaw, in connection with that of J. H. Pearson & Co. at Chicago. For eleven years, from 1865 to 1876, the firm did a profitable business, securing vast tracts of valuable timber land, and manufactured about 20,000,000 feet of lumber yearly.

In the spring of 1871 the Chicago yard was sold to Elisha Eldred & Co., who were burned out in the great conflagration of October in that year. From this time Mr. Pearson devoted his attention to the manufacture of lumber at the Saginaw mill until 1880, when, leaving the mills in the efficient care of his son, Eugene H. Pearson, Mr. Pearson returned to Chicago and located a yard at the corner of Canal and Lumber streets, under the old designation of J. H. Pearson & Co., Granger Farwell being admitted to a partnership. In 1883 the company removed to what was later known as the stock-yards district, on Thirty-ninth street, and the business was incorporated as the Pearson Lumber Co., of which Mr. Farwell was elected president. Some years later a branch yard was established at Evanston, twelve miles north of Chicago. In 1882 Mr. Pearson, with A. Q. Perry, organized the Perry-Pearson Lumber Company, with large timber holdings on the Manistique river of the upper peninsula of Michigan; this company, in 1885, became the North Shore Lumber Co., with heavy operations in timber lands and lumber. With advancing years Mr. Pearson found it necessary to place the heavy work of his extended operations upon the shoulders of younger men, and, while of remarkable vigor for a man now seventy-eight years of age, finds his strength sufficiently taxed in the care of his property, and in advising the transactions of those upon whom the burdens of care have fallen. He is largely interested in the Globe National Bank of Chicago, of which his son, Eugene H. Pearson (for many years manager of the mill operations at Saginaw), is vice-president. Mr. Pearson's married life was peculiarly blessed, his wife being a woman well fitted to advise, comfort and cheer through the forty-one years of close companionship, which came to a most afflictive end with her decease, in December, 1891. Three sons and one daughter was the fruitage of these happy years. Of the sons, Eugene Henry is the only one who has followed the lumber business, being associated with his father in the firm of J. H. Pearson & Son, in connection with the business at Saginaw and the upper peninsula. Arthur, the eldest son, is an artist, and Robert N., the youngest, is connected with the Central Trust Company of Denver, Col. The daughter is the wife of H. McDonald Scott, a professor in the Chicago Theological Seminary.

During his long connection with the lumber trade of Chicago and the northwest, Mr. Pearson has enjoyed the unbounded confidence and respect of all who have been brought in contact with him in business or social life, and the influence of the excellent habits formed in youth, under the training of his New England parentage, has borne fruitage in a character which has commanded not only respect, but affection. Connected since 1858 with the First Congregational church of Chicago, he has been prominent in advancing the interests of that denomination; in politics a Republican of decided views, he has never been an office seeker, while at all times interested in all matters which concerned the welfare of nation, state or city. As a typical Christian citizen and merchant, he, with advancing years, draws near to the close of a useful life, in full enjoyment of that public and private esteem which is the unfailing mark of a well-spent life.

Perley Lowe.—Very few of those who have made the Chicago lumber trade famous, and have raised it to a position excelling all its competitors in the extent of its business, have started in life with silver spoons in their mouths. Few, indeed, of the many hundreds who first and last have been numbered among its prominent dealers and wealthy men but commenced their career in subordinate and humble positions.

Perley Lowe was one of Maine's contributions to the lumber trade of Chicago. He was born at Levant, Maine, in 1845, and spent his early days in alternating between the common schools of the neighborhood and the prolific crop of stones which covered his father's farm, the latter probably occupying more of his time than the former, and giving him a reputation for skill in the construction of those stone fences which surround the farms, and are the pride of the life of a Yankee farmer, excelled in his work by none of his companions or elders. At the age of eighteen his patriotism could brook no longer delay, and he, in 1863, enlisted in the First Maine cavalry, with which he participated in all the battles under the gallant Phil. Sheridan until the surrender. This contact with a world beyond the boundaries of his father's farm taught the young man the value [illegible] education, and on his return home, while still the rocky fields wooed him to the labor of building stone fences, a higher call demanded such division of his time with books as speedily to fit him for a teacher; and handling the birch rod proved his first initiation into the lumber business. One year of teaching sufficed, however, and his footsteps were turned toward the setting sun, where a bow of promise shone out of the west, one end of which had footing at Chicago. His army life had not removed that bashfulness for which, as a country boy, he was at the time noted, nor had his year of school teaching in the country district embrazened him to seek employment where he would come in contact with ladies; so, on reaching Chicago, he did not seek employment in a dry goods store, nor yet in the grocery business, but an odor which reminded him of the pine woods of his native state drove his unresisting feet toward the lumber yards, where his brawn and muscle, combined with intelligence, enabled him to become a first-class "dock wolloper;" for only one year, however, for employers were not slow to discover that good material was going to waste while this young man was doing work for which a lesser degree of intelligence might be available, and Spalding & Porter were the first, then T. W. Harvey, and the Garden City Planing Mill Company, and Thompson, Henry & Co. successively inducted the young man into higher positions, more suited to his talents, until the organization of the

Jesse Spalding

firm of Thompson Bros. & Lowe, which for four years did an extensive lumber business.

In 1889 David Kelley secured him as a partner, and the firm of Kelley, Lowe & Co. was organized, and continued for four years, when, Mr. Kelley retiring, the present firm of Perley Lowe & Co. was organized (1893), of which his brother-in-law, William Templeton, is a party in interest.

As a boy on his father's farm picking up stones, Mr. Lowe had an ambition to be the best stone fence builder in his township. As a soldier, he aimed to know the details of a soldier's life and duty. As a teacher, he proposed to be a safe guide to his scholars, by himself knowing what he sought to teach others. As a lumber shover, he threw his best muscle and brawn into the mechanical branch of the lumber business; as a foreman and salesman, he allowed nothing to interfere with his purpose to understand the principles of finance and trade; as a lumber merchant, he set out to master the business in all the details of inspection and grading; so that while conservative and somewhat slow in arriving at a conclusion, when he has once made purchase of a cargo or a mill cut, it is safe to assert that his judgment will be fully justified by the results in pile upon his yard. It is a high compliment to his judicial cast of mind, and recognized honesty of purpose and clearness of perception, that in cases of dispute between other members of the trade, no man is more often selected as an arbitrator, and no man's decision is more frequently accepted as final and conclusive.

Socially, Mr. Lowe is rather retiring; he is not of the kind that seeks companionship in balls, parties or routs; a gorgeous palace with the richest furnishings and an army of servants would have no charm for this rugged scion of the Pine Tree State; but, in the company of congenial friends, in the discussion of economic, social or scientific questions, the retiring disposition, which would shun the simply gay and thoughtless throng, gives place to an animated countenance and an intelligent conversation upon themes which ennoble and enrich the mind.

As an active member of the Methodist church, Mr. Lowe believes that the life speaks louder of a man's character than the most sanctimonious garb or speech. Fond of sports of the field, he is a noted member of a small coterie of lumbermen to whom the gun and a week upon the duck ponds is a yearly, much enjoyed recreation which Mr. Lowe appreciates as highly as if it could not be said that he neither uses intoxicants, plays cards nor uses tobacco, and it is to his credit that the Sabbath is to him as sacred when on these expeditions as when at home in the enjoyment of church privileges, while yet he is far from the bigotry which would dictate to his companions the adoption of his personal views, believing that example is often of more effect upon one's fellows than argument and preaching.

Mr. Lowe has repeatedly been elected a director of the Lumberman's Exchange, and in 1885 was elected to the vice-presidency, succeeding, in 1886, to the presidency of the institution.

There is in Mr. Lowe's history a lesson worthy of the attention of every young man who may read these pages, a lesson of faithfulness in the discharge of duty to parents; to country and to himself; whether in picking up stones in the field; in carrying a sword in the upholding of the institutions and ensuring the perpetuity of his beloved country; in shoving lumber on the dock; or in holding positions of authority and trust; seeking in each department of life to acquaint himself with all the details of the business in its every branch; in a consecration of all the powers and knowledge thus acquired to the service of a higher power whose pre-eminent claims to service are the main spring of life; all but conduce to that broadening of intellect and perception, which mark not only the successful merchant, but the happy head of a cultivated home, the useful citizen, the Christian gentleman, and the man of unbounded influence among his associates.

The yard of Perley Lowe & Co. has for many years been located on Wood street, south of Twenty-second street, where the firm has become one of the heaviest, in extent of its yearly trade, among the many large concerns in the lumber business of Chicago.

Mr. Lowe was married in 1873 to Miss Eliza Templeton of Chicago, the happy union being blessed with four daughters. During the past four years (1894 to 1898) Mr. Lowe has greatly extended his business, and it is no uncommon thing to hear of his purchase of mill cuts extending as high as from 30,000,000 to 50,000,000 feet each, not only an evidence of individual and corporate enterprise, but of the vast trade still remaining to the merchants of Chicago, among whom Mr. Lowe takes a leading position, and is held in the highest respect not only in personal character, but as a man of conservative views, combined with abnormal enterprise in extending his operations in thoroughly safe channels, wholly free from speculative optimism, yet if anyone wants to close out a business and sell his stock of lumber, Mr. Lowe will always make an offer, his recent purchase of the stock and business of the retiring firm of Shoemaker & Higbee being the eighth deal of this kind.

Phillip L. Auten has for over thirty years been connected with the Chicago lumber trade. Mr. Auten was born at Milton, Pa., in 1840, the son of J. J. Auten, an old logger and lumberman on the branches of the Susquehanna river, and from 1848 proprietor of a saw mill at Milton, so that the early life of Mr. Auten was surrounded by the atmosphere of the forests, and the manufacture of lumber. Leaving the Wesleyan Seminary at Williamsport, where he received the finishing touches of an education, in 1858, the young man went to Chicago, where he found employment in the lumber yard of Jemson & Roberts, at Eighteenth and Lumber streets, where he was for two years foreman of the yards, leaving them in 1861 to take the same position in the yard of Jacob Beidler, and was filling this position when, in 1862, he enlisted in the Board of Trade battery and went to the front, serving for three years in the army. On his return, he again entered Mr. Beidler's employ and remained with him for seven years. In 1872 he took charge of the yard of the Ford River Lumber Company, which position he later vacated to accept the position of salesman for Blanchard & Borland, and in 1876 formed a partnership with H. G. Billings, under the firm name of Billings & Auten, in the commission lumber business. This partnership continued for two years, and in 1879, Mr. Auten having purchased an interest in the Ford River Lumber Company, took charge of its interests, both at the mills at Ford River and in the sale of its product at Chicago, continuing in this capacity until 1896, when he withdrew from active participation in the affairs of the company, and has since devoted his time to the care of his general business interests.

Mr. Auten has sustained an enviable reputation among the craft as a clear-headed, active and intelligent business man than whom none have been held in higher respect, or possessed to a greater degree their confidence. He was married in 1870 to Miss Isabel Seydele of Milton, Pa., and has one son and one daughter.

William E. Kelley.—This gentlemanly business man of Chicago hails from the "Pine Tree" state, the land of immense forests and beautiful lakes, whose rugged coast, lined with rocky and picturesque islands, is washed by the sullen waves of the old Atlantic. Down there in the town with the dreadful name, Passadumkeag, on the 27th of August, 1850, he first greeted the light. He is the only son of Asa P. and Mary A. (Hodgkins) Kelley, an extended and well-merited sketch of whom will be found elsewhere in this work. William E. passed his youth uneventfully, acquiring a fair education at the district schools, and later at Monson Academy in the town of Monson, Mass. Succeeding this, he attended the famous Yale College, and supplemented his academic education with a fine classical polish, and was thus ready to step out into the world and question his horoscope for himself. He was now twenty-one years of age, full of hope and ambition; blessed with good health, a robust constitution and a well-equipped mind. He came to Chicago, where his parents had moved in 1862, and at once entered the employ of Kelley, Wood & Company, lumber dealers, as a clerk, their yards then being at Twenty-second street and Center avenue. He served in the general capacities of shipping clerk, bookkeeper and general office man, learning rapidly all the details of the business necessary to give him a thorough knowledge of the trade. To make his knowledge of the lumber business more complete and practical, he spent an entire winter in the lumber camps of Michigan, participating in the active logging operations of the men and enjoying their free and ready life. His object from the commencement was to learn every remote detail of this pursuit, so that in future he could make careful estimates and calculations and thus anticipate every cent of cost or profit. This mastering of the business is the key to his success. Every other department has been just as thoroughly studied.

He continued to serve faithfully as clerk until 1873, when he was admitted as a partner in the firm of Kelley, Rathborne & Company, composed of Asa P. Kelley, William E. Kelley and Joseph Rathborne, and at once became active manager of the concern, and so continued until 1891, when the corporation of A. P. & W. E. Kelley Company was dissolved by the retirement of the elder Mr. Kelley. When W. E. Kelley assumed active management, in 1873, the company had already a large and rapidly improving trade, having been placed on a firm foundation by the excellent business qualities of Asa P. Kelley. But after 1873 the latter began to travel extensively in this and foreign countries, and the principal responsibility was placed upon the shoulders of William E. Kelley. Every branch of the enormous concern was stimulated with new life by the force of his character. The trade steadily expanded and enlarged, and yielded a satisfactory balance on the right side of the ledger. In 1886 he established a branch yard at Tonawanda, N. Y., where he has yet a large yard and profitable trade. He is also a member of the lumber firm of Bradley & Kelley of Milwaukee, composed of Edward Bradley and William E. Kelley, with large mills at McNaughton, Wisconsin, and a branch railroad equipped with engine and cars. Their planing mill turns out immense quantities of dressed lumber, lath, shingles, etc. These mills operate band saws, with capacity for manufacturing 100,000 feet of lumber and 50,000 shingles per day, are wonderful results of the art of lumber production, and are equipped with every mechanical device or invention and every adjunct necessary to make their operation vast and profitable. Mr. Kelley is a director in the Land, Log and Lumber Company of Milwaukee, which corporation controls large bodies of timber land in Wisconsin and Minnesota. He is also senior member of the firm of William E. Kelley & Company, with general offices at 901 Chamber of Commerce building, and with mills in Michigan and Wisconsin, from which they wholesale large quantities of lumber, lath, shingles, etc. Whatever tends to improve the lumber interests of Chicago finds in Mr. Kelley a staunch supporter. He was vice-president of the old Lumberman's Exchange from 1882 to 1886, and did a great deal to make that organization useful and popular.

He was united in marriage September 14, 1876, to Miss Margaret A. Vail, a native of Chicago, and daughter of Asa Vail, for many years a prominent real estate dealer, but now deceased. They have four children: William R., Asa R., Eleanor V. and Margaret H. Mr. Kelley and wife are members of the First Presbyterian church. He is a Republican, and a member of the Chicago Union League, Calumet, Washington Park and Chicago Athletic clubs.

Mr. Kelley is president of the Summit Lumber Co. of Junction City, Arkansas. The two mills of this company operate two circular saws, with a combined capacity of 100,000 feet per day of the yellow pine of that region, the product finding market largely in the east.

Asa Page Kelley.—The life of Asa Page Kelley, like that of many others of Chicago's most active, able and successful business men, has been full of vicissitudes and changes of fortune, but at last, toward the close, brought both fortune and a high reputation. The last thirty years have witnessed the extraordinary development of Chicago, and during this marvelous period Mr. Kelley had done not a little to extend the commerce and reputation of the city and to make it the foremost mart in the world of trade. When he came here, in 1862, he had but little with which to engage in business, but that little, owing to his eventful earlier experience, was invested to the best advantage, and soon began to grow. In Mr. Kelley's life, as in all our lives, there had been important business events, which, from their bearing upon his subsequent career, served both as an index to his character and as a key to his success. It will be necessary, therefore, to go back and learn something of his earlier history before the logical conclusion of his subsequent honorable career can be accurately measured.

He was a native of the "Granite State," and was born in the town of Conway, Carroll county, on the 29th of December, 1822. He was, therefore, at his death, almost seventy-two years of age, at the end of the span of life allotted to man by the Psalmist; but his eye was yet bright, his hand steady, his step firm, though Father Time had touched his hair with the frosts of that old age which is always venerable and very often desirable. A pure life of worthy citizenship, and a conscience cleared and brightened by unswerving honesty, had left him well-preserved in body and spirit at the age of three-score years and ten. His parents were farmers and people of excellent habits and reputation, and both were also natives of New Hampshire, having been reared under the fatherly protection of the Manitou of the White mountains. They were David P. and Anna (Sterling) Kelley, the father dying in 1864, aged eighty-four years, at Davenport, Iowa, whither he had removed in 1860, and the mother dying at the same place and same age in 1879. Of their family of nine children, only two are now living—David and Samuel C. The first named is now president and senior member of the well-known heavy hardware firm of Kelley, Maus & Company, this city, while Samuel C. is a prosperous farmer, living near Muscatine, Iowa.

Asa P. was reared on the farm of his father in New Hampshire, and received the foundation of his education at the district schools in the neighborhood, but finished at Fryeburg Academy in the town of Fryeburg, Me. This institution was under the control of able and experienced instructors, who imparted a sound and practical education to their pupils. As a consequence, Asa P. Kelley, in the year 1845, was well fitted for the active duties of life, and, accordingly, began for himself as a civil engineer, to which profession he had been educated. After pursuing the same for three years, he abandoned it and opened a general store at Passadumkeag, Maine, and conducted the same successfully for eight years, and, in connection with his store, handled large quantities of logs, buying the heavy pine timber on the ground, cutting the saw-logs therefrom and rafting them down the Penobscot river to market. During his eight years as a merchant and lumberman he made a snug fortune. However, in 1855, he met with a severe reverse. It was a prosperous year with him and he had on the river bank the largest quantity of logs ever taken by him in one year from the woods. The river was very low, but the logs were rolled in, boomed and rafted, and started on their way down-stream. A number of very heavy rains came on suddenly, raising the river very high, and bringing down upon his rafts large quantities of logs from above. His booms were broken, his rafts swept down-stream, his logs scattered for miles along the river and lost, and nearly all the accumulations of previous years were thus destroyed. He honorably notified all of his creditors of his situation, and turned over his store and everything he had to them, though this was against their protest, for they had the highest confidence in his integrity and ability to build up again, and urged him to continue as he was, and even offered to lend him money to enable him to start again. But he thought it best to make a change, and after giving his creditors all the property he had, and assuring them that some day, if fortune favored him, all accounts would be honorably paid in full, he came west and went to Davenport, Iowa, to meet his brother David, who had just returned from California with considerable money. He at once formed a partnership with his brother, and together they engaged in the pork packing business, and in buying and shipping to Chicago and New York large numbers of live stock. They made money rapidly, and by 1862, when they came to Chicago, they had accumulated a comfortable fortune.

In 1862, when they engaged in the cattle and grain commission business, the country was in the throes of a great war, the stringency of money matters, due to a depreciated currency, already oppressed all markets, and the business outlook was dark and uncertain. But, like many others, they had the greatest confidence in the stability of the government, and, accordingly, without hesitation, branched out in the new field. During the remainder of the war they furnished large numbers of cattle for the government, to be used by the troops in the field, and while thus engaged, and until 1867, the firm was known as A. P. & D. Kelley. They made money rapidly, both through their own business sagacity and through the steady advance in prices of live stock.

In 1863 Mr. Kelley, at the earliest date he felt himself able to do so, having constantly kept in view his promise to his old creditors of 1855, boarded the train and returned to Passadumkeag, Maine. He called all his former creditors in and paid them dollar for dollar and interest for all they had lost by reason of his failure. When it is recollected that he settled with them in 1855, and was under no legal obligation to do so again, his unusual and remarkable procedure will be better understood. But this has been one of the chief characteristics in the business life of Mr. Kelley. He considers a conscience debt just as binding upon him as a legal debt. There is not one man in a thousand who would have done as he did. But this strict principle of honesty, carried through his entire business career, gave to his firm a reputation second to no other in this city, and confers upon his name the highest renown.

In 1867 Mr. Kelley established the lumber firm of Kelley, Wood & Company, composed of Asa P. and David Kelley, and later George E. Wood, with yards located at Center avenue and Twenty-second street, and mills at Muskegon, Mich., the annual cut of which was about 20,000,000 feet. They did a large and prosperous business until 1873, when Messrs. David Kelley and G. E. Wood withdrew from the firm, whereupon the new firm of Kelley, Rathborne & Company was formed, composed of Asa P. Kelley, William E. Kelley, his son, and Joseph Rathborne. They carried on the business without change until 1876, when Mr. Rathborne retired, and then the house of "A. P. & W. E. Kelley Company" was organized, comprising A. P. Kelley president, W. E. Kelley treasurer, and A. E. Silverthorn secretary. Thus they continued until 1891, doing an enormous and profitable business, but at the latter date Asa P. Kelley retired from active business, and subsequently lived free from active business cares. He was largely interested in the valuable timber lands of Wisconsin and Minnesota, and owned large and valuable real estate properties in this city. He was a stockholder in the Continental National Bank, and a member of the Union League club. He was a Republican, and himself and wife were members of the First Presbyterian church of this city.

In September, 1847, he was united in marriage with Mrs. Mary A. Hodgkins, widow of E. B. Hodgkins, who had two children by her first husband, as follows: Abbie T., wife of George P. Whitcomb, an attorney by profession, and Fannie, wife of A. E. Silverthorn, in the lumber business in this city. She presented Mr. Kelley with three children: William E., one of the most prominent lumbermen of the city; Annie, wife of William Ireland, who lives at Rochester, Minn., and Mary H., wife of W. B. Shufeldt, a resident of Chicago. In 1871 Mr. Kelley built a beautiful residence at 2244 Calumet avenue, where he lived in retirement, enjoying his ample fortune and the high respect of all who knew him. His life was a varied and busy one, full of lights and shadows, but replete with honest industry and with a steadfast Christian philanthropy. He was absolutely self-made, and a splendid representative of the ideal American citizen. His death occurred June 15, 1893, at Chicago, and he was followed to the grave by a large number of his late business associates and citizens, who had known but to admire and respect his sterling qualities.

Azariah R. Palmer.—One of the best known and most notable of the business houses of Chicago during the past thirty years is that of Palmer, Fuller & Co., the senior founder of which was the subject of our sketch.

Azariah R. Palmer was a native of Ohio, who, some time in the fifties, came to Illinois and settled at Aurora, whence he removed to Ottawa, where for several years he pursued his calling of a carpenter, making a specialty of hand-made doors and sash, and about 1850-1 removed to Montgomery, Ill., where, in connection with Vine A. Watkins, a little factory was started, with machinery of their own make, the mortising and tenoning being done by foot-power, and a market found by wagon throughout the surrounding country. In 1866 Mr. Palmer came to Chicago, and associated himself with William A. Fuller, who had, since 1854, been a clerk and bookkeeper for Goss & Phillips, then the leading manufacturers of sash and doors in the city, and the firm of Palmer & Fuller purchased the factory and business of Goss & Phillips. In 1869 George B. Marsh was added to the firm, which now became Palmer, Fuller & Co., and in 1872 Vine A. Watkins, who had meantime continued the old business at Montgomery, disposed of his interests there, and became a member of the firm of Palmer, Fuller & Co., Mr. Marsh having meantime retired. Mr. Palmer died in 1874, but the old firm name is retained, with Messrs. Fuller and Watkins as the surviving representatives of a house which has long been recognized as one of the staunchest of the many enterprising manufacturing houses of this city, and as an offshoot and successor of the original house of Goss & Phillips, is to-day the oldest sash, door and blind manufacturing house in Chicago, with a world-wide reputation, and having no superior in their line of business, which also includes the highest order of house-finish, both in pine and hardwoods.

Thaddeus Dean.—Never was a better known or more highly respected man connected with the lumber business of Chicago than Thaddeus Dean, whose enterprise and push, with an intelligent grasp of the local and general situation, has led to the securing of a retail trade of fully one hundred million feet of lumber per year.

Mr. Dean was born at Raynham, Mass., April 7, 1829, and supplemented his common school education with an academic course. At the age of sixteen he came west, and a year later had opened a store for general merchandising at Portage City, Wisconsin, and was appointed its first postmaster. In 1852 he was seized with the gold fever, which carried him across the plains on muleback to California, an experience which operated like a grindstone on his wits, which, naturally bright, became developed to such extent that few have since equaled him for ready repartee, or a happy after-dinner speech, so that when Mr. Dean is announced, every face grows broad, and every faculty is awakened in preparation for a hearty laugh, and a season of good humor is assured. Mr. Dean is a lumberman from the inevitable decrees of fate. While general merchandising at Portage City, he dabbled in lumber to a small extent; on reaching Grass Valley, California, in 1852, his first love was merchandising, but it soon lost its attraction, for Grass Valley was surrounded by the large sugar pines, which so nearly resemble the white pine (pinus strobus) of Wisconsin, Minnesota and Michigan. Mr. Dean did not at first recognize the disease which afflicted him, but thought it was mining, which he tried for a while, but did not convalesce from his heartache, until at last he diagnosed his disease correctly, and began to slaughter the forests and to cut the big logs into lumber in his newly built "Clipper" mill, and subsequently in his "Challenge" mill, both appropriately named as typical of the pushing character of their proprietor. These mills were located

Thad Dean

from thirty to forty miles north of Marysville, California, and consisted of a mulay and circular saw in each. But the lumber business of California got dull in the severe reaction which followed the abnormal excitements of many years after the discovery of gold, and in 1860 Mr. Dean sold his mills and returned to the east, and settling down at Madison, Wisconsin, again to pursue the line of general merchandising, building him a neat dwelling with intent to spend the balance of his days in comfort. It has for many years been an adage of the trade that no man ever rolled a saw-log or handled a pine board and was thereafter content in any other line of business; be that as it may, seven years of merchandising was enough for Thaddeus Dean, and in 1867 the firm of Wheelock, Dean & Co. opened a lumber yard near the mouth of the Chicago river, where, subsequently, the Peshtigo Company operated its extensive yards. In 1868 the firm became Dean & Perley, first at Fisk street, in the new lumber district, and later at Laflin street, until in 1871 Dean Bros. was the cognomen, until 1881, when Thad. Dean & Co. were announced, with yards at Laflin street and another at South Chicago, which was just looming up and displaying the bow of promise to become the new lumber district. Charles Bruse was at this time admitted to partnership in the South Chicago business, but the firm name remained Thad. Dean & Co. In 1887 Mr. Dean sold out the South Chicago yard to his partner, and the house of Dean, Bader & Co. was established at North avenue, the firm buying out first the yard of P. Wood, then that of Waldo, Schillo & Chandler, followed by that of Cook, Hallock & Gammon, and that of Loomis, Martin & Co., all of which were consolidated under the designation of the Home Lumber Company, while the firm of Dean, Bader & Co. assumed the title of the City Lumber Company. In 1888 the yard of John McDonald, at the southwest end of Fullerton avenue bridge, was secured, and with it a large section of river frontage south of the bridge, and Mr. Dean's son-in-law was installed over a large business under the designation of George E. Plumb & Co., which, on the death of Mr. Plumb, a year or two later, was incorporated as the Superior Lumber Company. Sighing for new worlds to conquer, in October, 1891, Mr. Dean purchased the yard and business of O. B. Jacobs, on Elston avenue, near Division street, and the Central Lumber Company sprang into existence; and his cup of conquest not yet being full, he, in 1894, organized the "People's" Lumber Co., with yards also on the north branch at Clybourn Place bridge. Mr. Dean is at the head of all these various companies and practically controls the trade of the north branch, with retail sales aggregating not far from 100,000,000 feet per year. If the spirit of conquest is not soon satisfied, future historians may be led into the mistake of asserting that Mr. Dean controlled the lumber trade of Chicago, while the truth is, that there is a large slice which he has not, and probably will not, aspire to grasp. Still, there is no telling what Mr. Dean will reach out after, and he has the reputation of catching all the fish he may angle for, while the trade respects him for an absence of those sharp and tricky qualities which so often characterize men of far-reaching business acumen and ability. Mr. Dean is eminently a social man, is a member of several clubs, and was for several terms president of the Lumberman's Exchange, and always on the directorate. To leave Mr. Dean out of the directorate was to play "Hamlet" with the Dane left out. Mr. Dean is a young man for his age, and is not likely to grow any older for a dozen or twenty years to come, and will always be remembered as the "livest" man and most genial connected with the Chicago trade, while his success in business is looked upon as the legitimate result of a determined system, combined with unflagging industry and unflinching integrity. No man stands higher in the estimation of the lumber fraternity, not only of Chicago, but of the entire northwest, in all portions of which his name is a household word, and his reputation is for honest and square competition in connection with the purchase and sale of lumber.

George A. Marsh.—George A. Marsh, formerly president of the Marsh & Bingham Company, was born near Kalamazoo, Mich., November 3, 1834, and died in Chicago, August 12, 1888. These few words would tell all that the public is interested to know of many men, but not of such men as was the man known among men by the name above written. "Sometimes," said Dr. W. W. Everts, who officiated at Mr. Marsh's funeral, "a connoisseur of art, after gazing with bewildered or inappreciative attention through the halls of an art gallery, pauses before a particular painting with intense interest. Something in its position, figure, coloring, expression, or historical or allegorical meaning fascinates him, and he lingers before it in a transport of admiration and ideal study, and carries with him across the sea, and to the end of life, a vivid memory of that masterpiece. So in our promiscuous observations of men, in business, social, political, or religious circles, we sometimes become acquainted with individuals whom we would be willing to accept as representatives of the highest mankind, and of succeeding generations. Such an one was George A. Marsh, so distinguished by the ennobling attributes of truthfulness and justice, moral courage and charity, that by the considerate judgment of those who knew him best, in circles of business, society, politics, public charity, and church life, he would be commended as a safe and bright example for the study and imitation of the rising generation." The lives of such men are not only interesting, but edifying, and the details which go to make them up, command the attention, not only of students of humanity in its varying phases, but of those who study the history of the rise and development of the communities, in the upbuilding of which they have assisted.

John P. Marsh, father of George A. Marsh, emigrated in 1833, with a family of seven sons and daughters, from Townshend, Vt., where he had been a merchant, to Michigan territory, then in the extreme west, in order to train his boys to the industry of the farm, and he took with him into that pioneer home much of the social refinement, united with a vigorous hardihood, which characterized so many New England village homes. Deeply interested in education, as well from his life-long training as on account of his own family, Mr. Marsh, in conjunction with the Rev. Jeremiah Hall, pastor of the church in Kalamazoo, and the Rev. T. W. Merrill, laid the foundations of Kalamazoo College, using their personal credit to purchase its site and erect its first building. After passing his boyhood days on the farm, young George Marsh prosecuted the course of study in that institution, which, although cut short of graduation by impaired health, was yet a good foundation for his subsequent business life.

Thus obliged to leave college, Mr. Marsh looked about him for some means toward earning a living and establishing himself in life. Taking advantage of the first opportunity that was offered, he entered a carriage manufactory as an apprentice, and having learned his trade, went into business for himself at Metamora, Ill., in company with a young man who had been his classmate and shopmate. After five years of hard work in this business, and while on a visit to friends in Chicago, circumstances favored his removal to this city. A large contract for railroad ties was offered him, and, accepting it, he, with his wife, went over into the oak timber district along the eastern shore of Lake Michigan. In this enterprise came to Mr. Marsh, at the age of twenty-eight, the turning point in his life. It required a year and a half's time for him to complete this contract, but, having done so, he was enabled to return to Chicago, educated in all the details of the manufacture and shipment of railroad ties, and thereafter for more than a quarter of a century he was identified with the railway material trade of this city and was probably the largest railroad timber dealer in the northwest.

From 1864 to 1879, under the firm names of Marsh & Goodridge and George A. Marsh & Co., a vigorous trade was carried on in ties, piles, poles and car manufacturers' lumber. In 1879 F. O. Marsh, a brother of George A., joined in the business, and the new firm, Marsh Brothers & Ransom, purchased the timber mill and yard at the foot of Illinois street. This addition to the business led to a large growth. In 1883 F. O. Marsh retired, A. E. Bingham taking his place, and the new firm reorganized under the present corporate name, The Marsh & Bingham Company. In 1878 Mr. Marsh took into his employ his nephew, Charles Allen Marsh, who, together with Arthur E. Bingham, previous to 1882, of Wells & Bingham, was Mr. Marsh's partner thereafter until the latter's death.

Mr. Marsh is given credit for having felt the greatest sympathy for all mankind and a desire to take no advantage in trade. It is said that this characteristic often came between him and large profit on his contracts, since it was not his disposition to grind the poor, and that, therefore, he was not among the men who coined money out of the scanty earning of the forest toilers. While this trait is supposed to have stood in the way of his prosperity, it brought its reward through the confidence reposed in him by business men who had been furnished repeated assurances of his integrity; while he is credited with having been a model commission man with his customers, he is also said to have enjoyed a personal credit far in excess of his bank balance. Several times during his business career he suffered losses through placing confidence in others, which would have thrown many men into bankruptcy. His friends say that at such times he bore the loss quietly, and bravely set about the task of restoration.

Among Mr. Marsh's acquaintances during his college life was Miss Maggie, daughter of the Rev. Cyrus and Jane W. Barker, who were missionaries to Assam, where their daughter Maggie was born. Mr. Marsh and Maggie Barker were married in 1859. After a residence of three years in Metamora, Illinois, and a business engagement of eighteen months, Mr. Marsh removed to Chicago. In the beginning of his manhood, Mr. Marsh was baptized into the fellowship of the Baptist church at Kalamazoo, Michigan. Upon coming to Chicago, he and his wife united with the First Baptist church, and gave themselves at once to the mission and home work of that organization. When Indiana Avenue Mission became a church, they united with it and returned to the First church again on consolidation of the two churches and the removal to Thirty-first street. Mr. Marsh was superintendent of the Sunday school on Indiana avenue, and later, for a number of years, of the Sunday school of the First church, until compelled to decline the re-election on account of the protracted illness of his wife. Upon the removal of the church to Thirty-first street, he was elected one of its deacons, and held the office until his own failing health compelled him to ask his brethren to release him. In the erection of the present house of worship he was a tireless member of the building committee, giving a considerable portion of nearly every day for a year to looking after a multitude of details which would be sure to be neglected if not attended to by some one who loved the church and its welfare. Mr. Marsh was not only a generous contributor, according to his ability, to all the expenses of church work, but always had an open hand for the many general purposes which make so large a draft on the benevolence of Chicago Christians. In the department of organized public charities, he was identified from its beginning with the Erring Woman's Refuge, located at corner of Indiana avenue and Thirty-first street. This home will always be a monument to his faithfulness and to his Christian fidelity and self-sacrifice.

Such Christian professors as Mr. Marsh in the public esteem partially atone for the imperfections of church membership, and retain the prestige of the church in elevating public opinion, and in setting moral questions according to divine law. In his business relations Mr. Marsh was, in the best sense of the word, a man and a Christian, so distinguished by the ennobling attributes of truthfulness and justice, moral courage and charity, that by the considerate judgment of those who knew him best, in circles of business, society, politics, public charity, and church life, he would be commended as a safe and bright example for the study and imitation of the rising generation. He was wise and wary in the management of his business; conscientious and fearless in maintaining political principles; courteous and condescending, without being undignified, in social life; sympathetic and self-sacrificing in the administration of charities; and judicial and influential in all trusts and relations.

Arthur E. Bingham.—Conspicuous among the lumbermen of the past twenty years has been the firm of Marsh, Bingham & Co., organized in 1883 as successors to the firm of Marsh Brothers & Ransom, organized in 1879 as successors to George A. Marsh & Co., in the business established so early as 1864 by George A. Marsh, a sketch of whose life will be found in the proper place in this history. Arthur E. Bingham of this firm, and president of the incorporated Marsh & Bingham Co., was born at Cleveland, Ohio, in 1852, the son of Edward and Esther (Sanford) Bingham, both of New England birth and ancestry. His father was for many years a prominent hardware merchant of Cleveland, where he died in February, 1895, his wife, mother of Arthur E., having passed away in 1871. Arthur was educated in the public schools of Cleveland and at the Polytechnic Institute at Brooklyn, N. Y.; his first business experience being with the National City Bank of Cleveland, where he held the positions of collector, bookkeeper and paying teller, successively, from 1872 until the fall of 1877. In November, 1877, he became a resident of Chicago, where he associated himself with "Cobb's Library," with which he was connected for two years.

His attention during this time was called to the immensity of the lumber trade of the city, and to the exceptional facilities which it offered for business success, and in April, 1879, he formed a copartnership with R. A. Wells, a hardwood lumber dealer of the city, under the firm name of "Wells & Bingham," with a wholesale and retail lumber yard at Clark, near Twelfth street, the firm continuing until January, 1883, when he withdrew, and formed a partnership with George A. Marsh and W. B. Ransom, under the firm name of Marsh, Bingham & Ransom, which, on August 27th of the same year, became an incorporation under the name of the "Marsh & Bingham Co.," with capital stock of $75,000. Mr. Ransom about this time withdrawing, George A. Marsh was elected president, A. E. Bingham vice-president and treasurer, and W. D. Walker secretary; Mr. Walker subsequently withdrawing, C. A. Marsh, a nephew of George A., became connected with the company, and was elected secretary.

On the 12th of August, 1888, Mr. George A. Marsh died, and Mr. Bingham became president and treasurer of the company, and C. A. Marsh secretary. The business of the company has been principally confined to the handling of ties and other railroad material, in which branch it ranks among the largest operators of the city or nation, having a reputation which extends over the entire north and west. The company has mills and yards at Iron and Thirty-seventh streets, Chicago, while drawing supplies from the mills and forests of all sections of the country.

Mr. Bingham is a member of the Union League and Kenwood clubs. He was married in 1875 to Miss Helen Whitney, daughter of George W. Whitney, Esq., of Cleveland, Ohio. Three children have been born to them: Florence, Harold and Madeline, the former of whom died suddenly at Rome, Italy, in 1897, while on a visit of pleasure to that country.

Charles Allen Marsh, vice-president and secretary of the Marsh & Bingham Co. of Chicago, is the eldest son of F. V. and Jennie E. (Allen) Marsh of Granville, Ohio, where he was born, July 16, 1857. His father, an able educator of Granville, superintended the education of his son at Denison University in his native town, from which institution he was graduated in June, 1878. In September, 1879, Charles went to Chicago, and found employment in the office of his uncle, George A. Marsh, for many years a prominent lumberman of that city (see sketch), his compensation for the first six months being simply his board. Diligent in his habits, he paid as strict attention to learning the routine of the office, and the details of the business, as if earning a large salary, and at the end of six months was placed in charge of the books of the concern, and at odd times did some necessary outside work, including the inspection of railroad ties, which formed a large element of the business, and the collection of bills, and for these various services was given a salary of $40 per month for the first year. Upon the consolidation of the business of the firms of F. O. Marsh & Co. and George A. Marsh & Co., and the organization of the firm of Marsh, Bingham & Ransom, he was given an interest in the new concern, and shortly after the incorporation of the Marsh & Bingham Co., upon the withdrawal of Mr. W. D. Walker, the secretary, Mr. Marsh was elected secretary, a position he has since held, and, in connection with the duties of which position, has attended to the traveling and general outside business of the company, looking personally after its interests in all parts of the country. He was married October 22, 1881, to Miss Lide Shepardson, daughter of Daniel Shepardson, Esq., president of the Young Ladies' Institute at Granville, Ohio. Mrs. Marsh, who died April 22, 1890, was a most estimable lady, who from tenderest years had been an active member of the Baptist faith, and whose singularly gentle and womanly, as well as consecrated, life, won to her a large circle of loving friends. To them came four children: Lottie, Harold, Helen and Fletcher, of whom only Helen and Fletcher are now living. Mr. Marsh's business history is that of the Marsh & Bingham Co. from its incorporation, since which time his interests have been identical with the successful career of one of the most prosperous business houses of Chicago, a success largely contributed to by his careful and systematic business habits, which have placed him in an enviable position among the business men of the city. He is a member of the Union League and the University Quadrangle clubs. The business of the company with which Mr. Marsh is a component part, is in the supplying of timber and other needful construction material (of forest growth) to the railroads and large contractors of the country, and in this line ranks among the larger concerns of the land, its handling of oak, pine and hemlock timber running into many millions of feet. Learning the business thoroughly at the outset, Mr. Marsh has been a far from unimportant factor in building up a mammoth trade, a result which could be attainable only through strict attention to business in all its details, and its conduct in a conscientious and strictly honorable manner. No house stands higher in this respect than the one with which Mr. Marsh is connected.

Edward Hines.—No more remarkable and extraordinary, not to say phenomenal, instance or illustration of the pluck and enterprise which has made Chicago a synonym for all that is pushing and enterprising in the business world can be found than is presented in the history of Edward Hines and the Edward Hines Lumber Company. The earlier development of the lumber trade of the city was through men who had been educated in the carpenter or other trades in which the whilom merchant had learned from practical experience in the handling of lumber for construction purposes of the needs of the building world; with the vast increase of the business at Chicago there sprang up a class of young men who, from long experience in office work in connection with the business, became, if possible, more intimately acquainted with the wants of the consuming public than had been their employers and educators.

Of this class Edward Hines is one of the most conspicuous illustrations. Born at Buffalo, N. Y., July 31, 1863, the eldest of seven children and the only son of Peter and Rose (McGarry) Hines, both of whom were natives of the Emerald Isle, he removed with them to Chicago in 1865, and was given the advantages of an education in the schools of that city. At fourteen years of age he left school to engage as a tally boy with the lumber inspection firm of Peter Fish & Brother, receiving a salary of $4 per week. No better school of preparation for what was to be the future work of the young man could have been found, his employers ranking among the best in the profession of lumber inspectors, and in their service the young man laid good foundations for proficiency in his acquirement of a knowledge of lumber and the conditions connected with its handling from the vessel to the yard of the dealer, and its assorting into the various grades recognized in the Chicago market. After a few months in this occupation, he entered the employ of S. K. Martin, one of the largest lumber dealers of the city, and commencing as office boy, at a salary of $4 per week, steadily worked up to and through the various grades of office service until he became bookkeeper and general office man, rounding out fourteen years of faithful and diligent service, with four years upon the road in the capacity of traveling salesman, thus becoming personally acquainted with a vast concourse of retail lumber dealers throughout all portions of the northwest, and learning, from actual contact with them, the individual needs of the several sections in which they were established, thereby becoming of inestimable value to his enterprising employer, while, being industrious and frugal in his habits, he was enabled to save from his salary until he had accumulated quite a sum of money. In 1884 the corporation known as the S. K. Martin Lumber Company was formed, and so valuable had Mr. Hines proved to his employer, and so great the confidence felt in him by Mr. Martin, that he was taken into the company, and elected to the responsible positions of secretary and treasurer, in which positions he continued until April 15, 1892, when he withdrew from the company, and proceeded to organize the corporation which has since been known as the Edward Hines Lumber Company, of which he became (and still continues) president, with L. L. Barth (for many years his fellow-employe with the S. K. Martin Co.) as vice-president, and C. F. Wiehe as secretary, and at once proceeded to build up a business, which, within a very few months, had attained proportions which not only astonished his competitors in the trade, but won from them the appellation (as applied to Mr. Hines) of "the young Napoleon" of the lumber trade of Chicago. Regarding the phenomenal success which attended the efforts of the company during the first two years of its marvelous development, The Northwestern Lumberman of January 6, 1894, said in an editorial commenting upon what was considered a marvel, even among the many extensive and enterprising efforts of Chicago lumbermen:

> "The sales of this company during 1893 (the second year of its existence) reached the enormous quantity of 102,525,629 feet of lumber, with a proportionate quantity of shingles and lath, the largest volume of business recorded by any Chicago house during that year, and a record approached in the past history of the trade of the city by but one previous record, that of the T. W. Harvey Lumber Company, which, in 1882, reported sales of 95,091,349 feet of lumber, which, with shingles, lath and posts (reduced to board measure), brought the grand total up to 105,181,814 feet."

Considering the business depression which prevailed during 1893, involving all classes of commercial industry, and the fact that this was but the second year of the company's business, the historian warmly endorses the assertion of The Chicago Timberman of about the same date in the statement: "This is an impressive showing, and it is safe to say that no firm of equal age in this or any other country can show results of anything like a parallel nature; as a matter of fact, the Edward Hines Lumber Company has outrivaled all the oldest houses in the trade." The later record of this company but emphasizes the conditions shown for its earlier years, their shipments in the year 1896 reaching 129,682,633 feet, while those for 1897 were 158,429,000 feet, the largest quantity of lumber handled in one year by any one firm or company in this country or in the world, so far as the historian can find any record.

The life of Mr. Hines and his phenomenal business success, for during the passing years since the above statements were made, the reputation of the company has suffered nothing, either in the extent of its operations or in the excellent reputation which it has sustained from the outset, is an excellent example of what industry and intelligent perception of the details and conditions of a business can enable a young man of energy and honest purpose to accomplish. Beginning at the bottom round of the ladder, with an eye fixed upon the possibili-

Edward Miny

ties of later years, with no outside help, depending wholly upon his own native talent, he has climbed to a most enviable position as one of Chicago's leading merchants, even before attaining the meridian of life. With all due credit to his worthy and able coadjutors of the company, it is no disparagement of their energy and enterprise to assert that the master and controlling mind in the development of what is conceded to be the most extensive strictly yard business in lumber in the world, is due to the energy and business acumen of the subject of this sketch.

Mr. Hines was married June 29, 1896, to Miss Loretto O'Dowd of Chicago, and has one child, a boy.

Soper Lumber Co.—Albert Soper.—Few names have been longer connected with the lumber trade of the nation, or more intimately associated with the trade at Chicago and the northwest, than that of Soper, represented by Albert and James Soper, as founders of the business which, as Park & Soper, Soper Brothers & Co., and Soper Lumber Company, has for many years occupied a prominent position in lumber circles.

Albert Soper, founder of the business, was born at Rome, N. Y., in February, 1812, of a parentage of English ancestry, who, being among the earlier settlers of Long Island, removed to Rome in the early part of the nineteenth century. Albert grew to manhood upon the farm of his father, Philander Soper, receiving as good a common school education as the neighborhood afforded, and at eighteen years of age learned the carpenter's trade, which he followed for several years, and through which he was led to engage in the lumber business, and later to erect the first planing mill in the Mohawk valley. Steadily pursuing his occupation of lumbering and in the manufacture of sash, doors and blinds at Rome, he, in 1865, visited Chicago, and seeing its vast opportunities for an expanded lumber trade, formed a partnership with George H. Park, and under the designation of Park & Soper started a planing mill and lumber yard at Canal and Lumber streets, where the firm soon built up one of the largest wholesale lumber yards of the city. In 1878 Mr. Park sold his interest to James Soper, a brother of Albert, and James P. Soper, a son of Albert, and the new firm became known as Soper Brothers & Co., and so continued until 1884, when another plant known as the Soper & Pond Company, of which Alexander C. Soper, son of Albert, one of the founders, was the head, was absorbed, and the business as reorganized was incorporated as the Soper Lumber Company, with a capital of $300,000. Of this company Albert Soper, now well advanced in years, but active, and with long experience and unusual energy, was elected president, James Soper vice-president, Alexander C. Soper treasurer, and James P. Soper secretary. The previous business of Mr. Soper and his connections had been confined to the wholesaling of lumber, depending upon the purchase of mill stocks and cargo lots for their supply, their trade extending all over the northern and western states, but upon the absorption of the Soper & Pond Co., the mill plant known as the "Michigan Shingle Company," which had been operated by that company at Muskegon, was absorbed, and the operation of the mills at that place was continued until 1890. In 1886, however, the company purchased extensive tracts of timber on the Menominee river, where for many years the mills of the company have manufactured an average of 30,000,000 feet of lumber annually.

Albert Soper died in May, 1890; he was a man of extraordinary energy and ability, with a clear head and an expert's knowledge of the lumber business, combined with business abilities of a high order; upon his death, his brother, James Soper, became president, and so continued until October, 1891, when he, too, was called from earth, and was succeeded by Alexander C. Soper as president, James P. Soper becoming vice-president, Charles G. Poggi secretary, and Charles Rudderham assistant secretary, the two last named gentlemen having been connected with the house for a number of years in clerical positions. The yards, planing mills and docks of the company have continued at Laflin and Twenty-second streets continuously since 1868, and have always ranked among the most extensive in Chicago, its annual sales, exclusively confined to pine and dressed lumber, reaching from 40,000,000 to 50,000,000 feet of lumber per year, together with a proportionate amount of shingles and lath.

Albert Soper, founder of the house, was preeminently a business man, whose energies and superior abilities were wholly devoted to the development of the large business which, under his able management, had been built up. He was a man of the highest probity of character, and was held in the highest esteem in the business circles of which he formed an important factor. He was for a number of years a director in the Hide & Leather Bank of Chicago, and a valued member of the Lumberman's Exchange. He was married in 1836 to Miss Esther Farquharson of Cherry Valley, New York, who, with five children, survived him. Of these, Arthur W., who was formerly a prominent railroad man, was later president of the Safety Car Heating and Lighting Company of New York city; Mrs. Alexander C. and James P. continue the business of the Soper Lumber Co., and Etta A. is the wife of William P. Smith of Chicago.

James Soper, brother of Albert, and for many years connected with him in business, was born at Rome, N. Y., March 18, 1830. His father, Philander, had for some years before engaging in farming, followed the occupation of carpenter and builder, as had his ancestors before him, so that in taking up the occupation of their father, both Albert and James were but following the instincts of heredity. Like his brother, James was given all the advantages of the common schools of the day, and at the age of eighteen years entered the employ of his brother in the wood-working establishment at Rome. In 1856 he went to Chicago, where he entered the employ of Cobb & Gage in the planing mill business, and after some years as foreman, purchased the Cobb interest, and the firm of Gage & Soper was instituted. About 1866 Wesley Brainard purchased the Gage interest, and the firm became Soper, Brainard & Co., Jonathan Slade being the "Co." This firm was located on the corner of Beach and Polk streets, and continued until 1878, when, a railroad company requiring the ground, the company was dissolved, and Mr. Soper purchased the interest of George H. Park in the Park & Soper Company, and became a member of the firm of Soper Brothers & Co., and later of the Soper Lumber Co., of which previous mention has been made.

He was twice married, his first wife being Miss Marietta Pond of Camden, N. Y., who died in 1875, leaving three sons, two of whom have since died. In 1878 he married Miss Mary E. Craighead of Dayton, Ohio, who, with one daughter and two sons, still survives.

Mr. Soper was a genial and upright man, who was beloved, as well as respected, by all who knew him. Of the strictest integrity of character, he possessed the confidence of all who came in contact with him in business or social relations, and his friends were numberless. Broad in his views of life, and of man's relations to man or to Deity, his high Christian character made him an example worthy of the emulation of all. A member of the Presbyterian church at Riverside (a suburb of Chicago), he was a trustee of that church at the time of his death, in October, 1891. Upon the death of the brothers Albert and James Soper, founders of the business, the affairs of the Soper Lumber Company fell into the hands of a younger generation.

Alexander C. Soper, who is now president of the company, was born in Rome, N. Y., June 6, 1846. He received superior educational advantages, attending the schools and academy of his native town, finishing with a collegiate education at Hamilton College, from which institution he graduated in the class of 1867. He then joined his father's family, who had removed to Chicago, and entered the old Merchants' Loan & Trust Company Bank and was employed in a clerical position for a short period. He then entered his father's firm and commenced to learn the lumber trade, to which he has since devoted his entire time and attention. He remained with the old company until 1870, when he embarked in business for himself in an association with Mr. W. M. Pond, forming the Soper & Pond Company. This firm rapidly acquired a large trade, and was in a prosperous condition when it was merged into the present company in 1884. Mr. Soper has a thorough knowledge of the lumber trade, and is a superior business man, genial and polished, having all the requisite attributes to conduct to successful conclusion large interests and corporations. He has been a prominent figure in the development of the gigantic lumber trade here, and has served as president of the Lumber Exchange. He was also the president of the Michigan Shingle Company for a number of years, operating one of the largest mills at Muskegon. He is also secretary and treasurer of the Illinois & Georgia Improvement Company, a railroad construction company, building a railroad between Macon and Savannah, Georgia. Mr. Soper is a man of progressive ideas, and an honored and esteemed citizen. In politics he is an Independent Republican, but has never sought office. He has large and valuable business interests, and devotes his time to their management exclusively. He was married in 1871 to Miss Mary E. Pope, also a native of Rome, N. Y., and daughter of Dr. G. W. Pope of the same city. They have two children: Alexander C., Jr., a medical student, and Edward Huntington. His family are members of the First Presbyterian church. Mr. Soper is one of the young, active and successful business men who have made Chicago famous for its industrial enterprise.

James P. Soper, the youngest son of Albert Soper, founder of this company, was born in Rome, N. Y., September 28, 1851. He attended the schools of his native town until the removal of the family to this city, in 1865, after which he graduated from the high schools here. At the age of eighteen years he entered the lumber business as bookkeeper for his father, who was then associated with Mr. Park under the firm name of Park & Soper, and so well did he apply himself, and so rapidly did his services become valuable to the company, that two years later he became a partner, and the firm took the name of Park, Soper & Company, James P. being the "Company." Under this name the firm continued business for six years, James P. having general management of the yards and mills. At the expiration of the six years, James P. and his uncle, James, bought the interest of Mr. Park in the concern, whereupon the firm became Soper Bros. & Company, and continued business as such until October, 1884, when it was incorporated as the Soper Lumber Company, as already related. At this time James P. was made secretary, but in October, 1891, he was elected vice-president. He now has charge of the yards and mills. He is a thoroughly practical business man, progressive and active, full of expedients to widen and improve the trade of the company, and stands high in business circles. He is a member of the Union League and Illinois clubs, and for two years has been treasurer of the Lumberman's Exchange. He is vice-president of the Menominee Bay Shore Lumber Company. He is yet young, and his excellent business ability and large experience in the lumber trade, having been engaged in it all his adult life, qualify him in the highest degree for a successful future business career.

On November 16, 1882, he was united in marriage with Miss Henrietta H. Hill, a lady he had known and loved from childhood. She was also born in Rome, N. Y., and is the daughter of Henry S. and Mary D. (Draper) Hill. Mr. and Mrs. Soper have two children: Geraldine D. and James P., Jr. The family are members of the Third Presbyterian church.

Frederick William Norwood.—So late as 1881, so little of what is known as "yellow pine," the product of southern forests, was to be had in Chicago, that no person or yard was prepared to take an order of any extent for the lumber which came under that designation. There were, in fact, but a few mills in the southern states which could furnish an article which was acceptable for northern use. Scientific manipulation of this excellent timber was an unknown science, and it was not until Frederick W.

Norwood conceived the idea that the timber, if properly manufactured, could not fail to find acceptance with the builders of Chicago, and acting on this theory, began, in 1881, to introduce it here, that the manufacturers of the south opened their eyes to the importance of the business in which they were engaged, and of the necessity for improved methods of manufacture, and more careful manipulation of their product. To Mr. Norwood, therefore, belongs the credit of the inception of the already vast and rapidly increasing trade in Chicago and the northwest in the forest products of the south. (In making this statement the historian speaks from personal knowledge, having discussed the question with Mr. Norwood before that gentleman decided upon the venture, being, as secretary of the Lumberman's Exchange, personally cognizant of existing conditions.) That Mr. Norwood has proved a successful lumberman is not due to the fact of birth or education. He was born at Wilmington, Mass., in 1842, his father being the Rev. Francis Norwood, a clergyman in the Congregational denomination, whose father, Francis, a vessel owner, traced his ancestry to the American colonists at so early a date as 1653, and about this time it is said that a member of the family sat as one of the judges who condemned to death the hot-headed king, Charles the First. The cognomen of "Francis" seems to have been a favorite one in the family, and among the heir-looms still cherished is an old-fashioned clock, the superscription on which shows it to have been made in London in 1692 for "Francis" Norwood, while a century later, "Major Francis" Norwood won distinction in the revolutionary war. Frederick William was educated at Williston Seminary, Mass., graduating at Amherst College, and soon after, in his twentieth year, he, in 1862, while on a visit to Minnesota, enlisted in the Sixth Minnesota regiment, and, going to the front, served faithfully for three years, retiring at the end of the war with the rank of major. He now entered the employ of Doggett, Bassett & Hills, wholesale boot and shoe manufacturers of Chicago, and was still in this business when he became imbued with the idea that the vast forests of the south could profitably be utilized in the Chicago market, and he began a close investigation of the subject, which resulted in the leasing of a yard at the foot of Illinois street and the staking of his all on the venture; the sequel discloses the wisdom of his conclusions. At first his business was confined to purchases of stock from the southern manufacturers, but finding that in order to render the material acceptable, there must be a radical change in southern methods of preparation, and that it was difficult to convince the manufacturers of the unfitness of their stock, he, with John S. Butterfield, who had joined him in 1884, in 1886 purchased the Boon & Sargent mill with 3,000 acres of land near Brookhaven, Mississippi, and fitting the mill for manufacture according to northern methods, increasing its capacity from 5,000 feet per day to 30,000 feet, continued operations until 1890, when the timber was virtually exhausted at that point.

The Norwood & Butterfield Co. now planted the town of Norfield, Mississippi, where they erected a double band mill (the first in the south), having capacity for manufacturing 100,000 feet per day, together with dry kilns having capacity equal to the daily cut of the mill, and planing mills containing thirteen machines for the manipulation of the product, and building eighteen miles of standard gauge railroad into the heart of the 50,000 acres of timber lands which they had purchased between the Illinois Central railroad and Pearl river, found themselves thoroughly equipped for the prosecution of the now enormous trade which they had developed—aggregating 30,000,000 feet per year, in contrast to the 750,000 feet which summed up the first year of the early venture. As before remarked, in 1881, when Mr. Norwood decided to test the value of southern pine in this market, it was difficult to obtain a carload of southern flooring in this city, and the result of his experiment undertaken in that year is shown in the receipt and sale of 97,000,000 feet in the Chicago market in 1892, it having now become one of the most important branches of the Chicago lumber trade and constantly growing in extent. Truly, to have been the progenitor of so important an industry, is an honor of which any man may well feel proud. With the increase of their business, demanding more room, Norwood & Butterfield Co., in 1893, removed their yard to the Illinois Central railroad pier on the south side of the river, establishing a business office in the Chamber of Commerce building, corner of La Salle and Washington streets.

Mr. Norwood was married in 1868 to Miss Lizzie, daughter of Col. K. Winne of Chicago, by whom he has one daughter.

John Spencer Butterfield.—In the "yellow pine" trade of Chicago and the south, the firm of Norwood & Butterfield Co. stand at the head, not only as the pioneers of the business at this point, but as the most extensive, in fact almost the only exclusive dealers in that product.

John S. Butterfield, the senior member and president of the firm, was born at Smith's Basin, Washington county, New York, in 1833. His father was an old settler of the county, a farmer by occupation, who, about 1825, combined with that industry the making and shipping of dock timber from the adjoining forests near Fort Edwards (Upper Hudson) for the construction of wharves and docks at New York, for the building of which he was also an extensive contractor, on both the North and East river sides of the city. He was also a large contractor in the building of the Champlain Canal, connecting the Hudson river with Lake Champlain.

The family removed to Milwaukee, Wisconsin, in 1849, and John supplemented the advantages gained in the common schools of Fort Edward by those of the common schools and academy at Beloit. Leaving college in 1852, he engaged in the occupation of traveling salesman in various departments of business, including twenty years with the leading wholesale clothing houses of Barrett, King & Co., King, Kellogg & Co. and Clement, Bain & Co., until in 1884 he became associated with F. W. Norwood in the yellow pine lumber business, manufacturing at their own mills at Brookhaven, Mississippi. Here the firm built up the largest business in southern lumber which has ever been reached in the northwest, and having at the outset adapted their manufacture in all respects to the wants of the market in which their product was to seek sale, stand first in the ranks of dealers in southern lumber throughout the sections where southern pine is consumed. They continued to operate at Brookhaven until, in 1890, finding their timber supply exhausted, the firm purchased 50,000 acres of excellent long leaf pine, and established the village of Norfield on the Illinois Central railroad, with timber lands extending from three to thirty miles to the Pearl river. At Norfield they erected a two band saw mill (the first in the south), with capacity for cutting 100,000 feet per day, combining with it dry kilns of capacity to care for the entire cut of the mill, together with a planing mill containing thirteen machines, and with eighteen miles of standard gauge railroad extending into their timber, they are now engaged on a more extensive scale than before to manufacture and sell the excellent product of the southern forests. The remarkable history of the development of the southern pine interests in the Chicago market is spoken of more fully in the sketch which we present elsewhere of F. W. Norwood, but it is due to Mr. Butterfield that a large proportion of the credit should be given that gentleman for the active personal effort which has resulted so largely in causing yellow pine to become a favorite in the building circles of Chicago and the northwest, and as well in awakening southern manufacturers to the fact that in order to introduce and maintain their products in this market, they must conform to northern methods of manufacture and manipulation. The receipt and sale of nearly 100,000,000 feet in 1892 is proof positive that the southern timber is hereafter to become a power in the lumber trade of this city. The Norwood & Butterfield Co. was incorporated under the laws of Illinois in 1887.

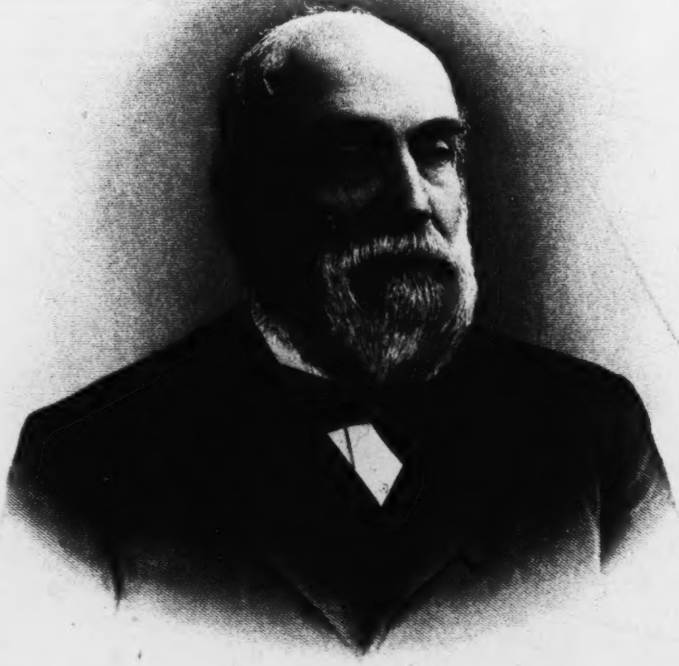
Mr. Butterfield was married in 1863 to Miss Mary E. Westgate of Madison, Indiana (who died in 1870), by whom he has two sons and one daughter (each being happily married), the eldest son, Charles S., being vice-president of the Norwood & Butterfield Co. and in charge of the southern business matters, while another son, William W., is treasurer and manager of the Chicago business of the firm. In 1876 Mr. Butterfield married Miss Emma Westgate, a sister of his first wife, by whom he has two children, Ralph and Edith.

Thomas Wilce was for twenty-five years a prominent figure in the lumber trade of Chicago, the firm of Wilce & Co. in later years including Mr. Wilce the elder and his two sons, E. Harvey Wilce and George C. Wilce, together with his son, E. P. Wilce, since deceased. The head of the house, although advanced in years, led a life full of activity, with interest to round out a business career to the end, holding that a man is best prepared to die when engaged in the active duties of life. His two sons were bred to business from boyhood, and were never so well content as when wrestling with the cares, competitions and labor of a large and complicated trade. The Wilce plant is situated in the very heart of the Twenty-second street lumber district. The location is on the corner of Throop and Twenty-second streets. The planing mill is a brick structure occupying a space of one hundred and sixty-six by two hundred and sixty-six feet, bounded by Throop and Twenty-second streets and Allport avenue, with alley on the north; the dry kiln covers an area one hundred and twenty-five by one hundred and fifty feet, and the lumber yard extends along Throop street, having a dock front in Gas House slip of sixteen hundred feet. Tracks connecting with the "Q" system extend the entire length of the yard, affording room for the loading of fifty cars at one time. There is piling space for thirty million feet of lumber. The large planing mill plant contains twenty-two machines, employed in the manufacture of maple flooring. As a part of the mill outfit there are nine dry kilns. T. Wilce & Company have, in late years, become the most extensive manufacturers of maple flooring in the country. With the view of promoting the sale of such material they began the boring of their flooring, so that it could be nailed in place without splitting, devising a machine of their own for that purpose. This proved a great success, and the flooring turned out by the firm soon became very popular. The boring machine originated thus in 1885: A room in Mr. Wilce's residence, occupied by one of his employes, was being re-floored, and the carpenter who was laying the flooring bored it by hand, calling Mr. Wilce's attention to the advantage to be derived from so doing; and Mr. Wilce at once devoted himself to the invention of a machine to perform this service, the success of which is evidenced by its universal adoption. This may be mentioned as showing what great results sometimes flow from a little incident, for, during 1890 and 1891, T. Wilce & Co. shipped this bored-flooring to London, Glasgow, Dublin, Hamburg and Rotterdam, distributing it over seven thousand miles. For years the maple flooring from the firm of T. Wilce & Co. commanded almost the entire trade of the city and surrounding country; but recently powerful rivals have entered the field. The result, so far as the Wilces are concerned, has been only to spur them to more energetic efforts to hold and extend the trade that they had before. The firm owns and operates two mills at Empire, Leelenaw county, Michigan. The total capacity of these mills is one hundred and twenty thousand feet a day. While maple is a special manufacture, large quantities of basswood, elm, birch, ash and oak are cut. The steam-barge, Hattie B. Perue, is owned by the firm, and during the season of navigation brings in hardwood lumber from the mills. T. Wilce & Company dealt in both pine and hardwoods up to the spring of 1890, but have since devoted all their attention to hardwoods. At a late date twenty-two million feet of hardwood alone was piled in the yard, the larger portion being maple strips for flooring. A complete line of oak, ash and other hardwoods is also carried in stock. The firm is also extensively engaged in the manufacture of oak flooring, of which they annually manufacture about 4,000,000 feet. The yearly business amounts to the handling of about thirty million feet of lumber. Since so much hardwood is included, it represents considerably more value than if the entire stock were pine. The house is backed by ample capital, as all who are familiar with the Chicago lumber business well know. It is one of the comparatively few concerns that is in the business to stay for many years, despite the mutations that inevitably come with the lapse of time and the demise of its founder. When changes arise that make it necessary to adopt new methods in order to meet the exigencies of trade, T. Wilce & Co. have always been equal to the occasion, having the means to stand the expense, and the will to continue business in spite of all discouragement. As an evidence of the firm's enterprise, it may be stated that during the period in which skating rinks were popular, the firm contracted to make and ship to London, England, one million feet of maple flooring, to be used there in the construction of such rinks.

A native of Bocastle, Cornwall, England, Mr. Wilce was born July 28, 1819, the eldest of the four children (all of whom are dead) of Thomas and Mary (Venning) Wilce, the former of whom was born September 6, 1790, and died in 1865, the latter having been born in 1794 and died in 1822, when the subject of this sketch was but three years old, in consequence of which he may be said never to have known a mother's loving tenderness. At the age of ten he found a home for two years with his uncle, Henry Wilce. During the succeeding two years he was with his father and his uncle, Jacob Venning, but returned to his uncle Henry Wilce, and was a member of his family until he was twenty years old, living the life of a farmer boy. He then went to Padstow, England, about nine miles from the place of his birth, to learn the trade of carpenter and builder, and remained there until 1842, when, on the 10th of April, he took passage in the "Clio," a sailing vessel, for Quebec, Canada, where he arrived May 21, going thence to Montreal. During the succeeding year he worked at his trade on a salary, and then, in partnership with William Walker, opened a carpenters' and builders' shop. At the end of eighteen months, Mr. Walker retired from the firm, and was succeeded by Leslie Johnson, who was Mr. Wilce's partner for a year. Thereafter, Mr. Wilce continued business in Montreal until 1848 alone, and he made the discovery that many another man has made, that where he had failed to make money with partners, he had easily succeeded in doing so by himself. In June, 1848, he went to Chicago, and in the following September brought on his family, which then consisted of his wife and one child. From 1848 to 1850 he lived in rented property at the corner of Randolph and Market streets. In the meantime he purchased a fifty-foot lot on the west side of Sangamon street, near Monroe, for which he paid two hundred and twenty-five dollars cash, which would be a ridiculously insignificant price at this time, on which he built a house at a total cost of four hundred and fifty dollars. He later owned a fine two-story and basement residence on a one hundred and twenty-five by two hundred foot lot at the corner of Harrison and Marshfield avenues. He began working at his trade and was successful as a contractor and builder, making money with great rapidity until 1867, when he retired from business with a competency. But his retirement was not for long. He realized that he had a family growing around him and thought it best that he should engage in some enterprise in order to give a thorough business training to his sons, and in 1873 he purchased the planing mill of Loft & Burnham, at the corner of Throop and Twenty-second streets, and took his son, the late Edwin P. Wilce, as his partner. They soon afterward established a lumber yard at Throop and Twenty-second streets. In the spring of 1880 Edwin P. Wilce went to Winona, Minnesota, and in company with Conrad Bohn carried on a contracting, sash, door and blind business for two years. Returning to Chicago, he, in 1882, bought an interest with William Stevens in the latter's sash, door and blind business. This enterprise was established by Mr. Stevens in 1863, at the corner of Franklin and Van Buren streets, and was continued there until 1873. With the accession of Mr. Wilce, the firm became Stevens, Wilce & Co., and in 1883 Mr. Wilce bought the interest of Mr. Stevens, and under the style of E. P. Wilce & Co. continued the business until his untimely death in 1889, and it has been continued by his estate since under the same name. The operations of this concern have aggregated three hundred thousand dollars a year, and involved the handling of twelve million feet of lumber, which demonstrated Edwin P. Wilce's wonderful business ability, which had been foreshadowed when, at eighteen, he knew his father's business thoroughly and managed it better than it had ever been managed before.

In 1886 Mr. Wilce sent his son, Daniel V., to Leelanaw county, Michigan, and there erected a large saw mill, about the same time purchasing a half interest in another important mill at Empire in the same county; and both establishments, with another at Empire, since acquired, are in full operation, with a yearly output of 20,000,000 feet, employing about six hundred men, while about half that number found constant employment in Mr. Wilce's Chicago planing mill and lumber yard; and it speaks volumes for his liberality and indulgence as an employer that there are men working for the company who have held their positions uninterruptedly for eighteen or twenty years. Daniel V. Wilce, who is now deceased, was a young man of such business ability that in his methods, his characteristics and his success he, to a considerable extent, duplicated the fame of his brother, Edwin P. May 7, 1848, Mr. Thomas Wilce married Miss Jane Carlisle, daughter of William and Jane (Whittaker) Carlisle, both natives of Lincolnshire, England, who, with their three sons, came to Canada in 1824, where the father died in 1832, the mother surviving until 1862 and dying in Chicago. Mrs. Wilce, who is a native of Chautaga, Canada, born January 18, 1826, has borne her husband eleven children, named as follows: Mary J. V., born March 26, 1847; William Henry, born January 31, 1849, who died August 2, 1851; Emaline E., born November 11, 1851, who died December 3, 1876; Thomas, born September 7, 1854, who died May 1, 1856; Edwin P., born March 24, 1857, who died September 20, 1889; Jennie L., born March 22, 1859; Edmund Harvey, born December 6, 1862; George C. and Daniel V. (twins), born December 7, 1864, the latter of whom died February 10, 1889; Thomas, born February 16, 1867; and Jessie, born March 13, 1869, who died December 3, 1869.

Mr. Wilce was descended from a very long lived ancestry, and inherited from his father a strong physical constitution and from his mother a warm and ardent susceptibility. His temper was quick and momentary, and a feeling of revenge was unknown to him. Peacefully inclined, he would bear injustice rather than give the appearance of having a hard disposition, and no one can recall the time when he had gone about the task of punishing an enemy. When he was wronged he rarely made a complaint, but kept silent and gave kindness for injury, and when the error had been confessed he fully and freely forgave the offender. His impulses were the best and kindest, and no man would do more for the distressed. His generosity was boundless, his friendship very strong and his love of home and family almost a master passion. As conscientious as a man could be, he would pay to the last cent and with the utmost promptness, and this was a distinguishing characteristic through all his life. His charity was almost without limit. When a baby, sitting on his father's knee, he gave the first money he ever owned to a beggar seeking aid, and the amount of money he has disbursed in a similar way since that time, and the number of people he has aided, would make a large showing could they be recorded here in figures, but the figures that would tell the story were not known even to himself, and he would not give them if they were. He was in the highest and best sense a lover of liberty—a lover of liberty for others as well as for himself, liberty of thought and of belief and of action—and could not tyrannize in any position, under any circumstances and with any power that might be conferred upon him. Personally, he would not be easily convinced or turned from his convictions; he thought for himself, and was inclined to demand proof, and take little that appeared incredible to him upon the authority of others, believing that the brains of every man are given him with which to solve and settle for himself, as well as he may, the great problem of life and death. A member of no church, he yet had a high order of reverence for the Deity and was liberal in his support of many, and tolerant of the creeds of all churches, though placing his religion more and more in a right life, and less and less in ceremonial observances. Ardent, full of vim, sensitive, he felt most intensely and to the ends of his finger nails, and his capacity for joy or for sympathy was unbounded. Giving to others their utmost due in consideration and deed, he was easily wounded by injustice to himself, though always preferring to believe that it arose from thoughtlessness rather than from a desire to deprive him of anything that belonged to him. Always thoughtful of those he loved or befriended, he was cautious to the last degree so that no pain or inconvenience should come to them through any oversight of his. Gifted with a mechanical eye that could measure to a shade simply by a look, he was pre-eminently an intelligent mechanic, and the faculties which would have made him a noted inventor were utilized in his business in the contrivance of many and effective ways and means of bringing about mechanical and financial ends, demonstrating that he was really great in resources, in accomplishing much with little, in shaping means in hand to ends desired, and bringing about favorable results where others would have reaped only failure. A good judge of character, he was at the same time endowed with a great amount of practical shrewdness, and was quick to see into and clear through, any business proposition presented to him. He had decided talent for large enterprises, and the ability to handle a gigantic business involving the investment of hundreds of thousands of dollars and the employment of a thousand men, as easily as some men manage the most insignificant affairs. Uncommonly well-informed, he understood his business thoroughly in every detail, and in all important matters the outworkings of his own judgment and good sense guided him correctly. If he had an infirmity that rendered him susceptible to imposition, it was his too ready credence of the recitals of those who sought charity or financial aid; and this good fault often gave him the consciousness of having tried to do good, though his deed may have miscarried through no fault of his own. His memory was remarkable, and it is worthy of note, in view of the fact that some bright men remember some kinds of things and forget others, that he recalled thoughts, dates, places, faces and circumstances with equal facility, and committed easily and accurately to memory the details or conditions of any contract or arrangement. Mr. Wilce's private charities and his benefactions to churches have been mentioned. He was no less liberal in the temperance cause, in which his heart had been engaged for many years, and was a practical abstainer, using neither liquor nor tobacco in any form. He was for six years treasurer of the Washingtonian Home for Inebriates, and took a quiet, but eminently practical, interest in Dr. Keeley's chloride of gold cure for drunkenness, having sent two men to Dwight to test its efficiency, at an expense of about two hundred dollars each. During his busy years he was not unmindful of the growing interests of Chicago, and at all times aided them liberally and promptly. He was alderman of the old Tenth ward of Chicago from 1869 to 1871, and was a member of the Board of Education from 1871 to 1876. During his service as alderman he was chairman of the finance committee. Reaching an age beyond the three-score and ten years allotted to man, Mr. Wilce continued in the enjoyment of the greatest bodily and intellectual vigor. He was sympathetic to a degree, fond of reminiscence, and one of the most charming companions for young or old. His hair was white, as was his beard, but his form was erect and sturdy, his smile bright and his heart young, up to the very close of his busy life. During his later years Mr. Wilce threw the burdens and cares of business upon the shoulders of his sons, E. Harvey and George C. Wilce, who continue the business under the old firm designation. Mr. Wilce was called from the activities of life March 2, 1897, and his funeral obsequies were attended by nearly all of the lumber fraternity of Chicago, while the streets in the vicinity of his late residence were crowded by the sorrowing employes, who thus silently evinced their affection for their late employer.



Thos. A. Rilee

Thomas R. Lyon.—The connection of Thomas R. Lyon of Chicago with the lumber industry of the northwest, embraces one of the most remarkable among the many interesting personal histories of the trade which it has been the privilege of the historian to record, embracing as it does the sequel to the remarkable career of Captain Eber B. Ward, who, while being better known to the general public in connection with the vessel and iron interests, was, nevertheless, not only a pioneer in the lumber trade, but for many years one of the most prominent operators in the state of Michigan. In 1826 Captain Ward, in connection with John C. Wyman, was among the first to appreciate the future value of the immense pine resources of the state of Michigan, and they together made extensive purchase of the excellent pine lands of St. Clair county, which at that time embraced about all the territory which was known to possess such resources, but with an increasing knowledge of other sections, Captain Ward lost no opportunity for acquiring good selections in other portions of the State, and at the time of his death ranked among the largest holders of this kind of property in the State. Few men of the earlier operators have done more to give impetus to a business which, from the smallest and humblest beginning, has grown to proportions which gives it rank not only among the greatest industries of the land, but the pre-eminence as the dominant industry in point of value, the United States census for 1890 placing the value of the forest products of the nation at no less a sum than one billion and thirty-five millions of dollars in the census year.

Thomas R. Lyon, for many years a lumberman and banker, was born at Conneaut, Ashtabula county, Ohio, May 31, 1854, the son of Robert Lyon, a prominent merchant of that town, who died in October, 1855, leaving the subject of our sketch an orphan at the tender age of four months. During his boyhood and youth, under the tender ministrations of a loving mother, he attended the common school of his native place, and at the age of fourteen years took a course of study at Goldsmith's Commercial College at Detroit, and in 1872 entered the employ of Captain Eber B. Ward (who had, in 1862, married a sister of Thomas), and was soon installed as cashier in the office of Mr. Ward at Ludington, where Captain Ward was conducting an extensive business in the manufacture of lumber, and was occupying this position at the time of the sudden death of Captain Ward from apoplexy, which occurred January 2, 1875, at Detroit. Soon after this sad event Mr. Lyon was employed by the widow in the management of the vast estate of her deceased husband. As early as 1852 Captain Ward had become largely interested in pine lands tributary to the Pere Marquette river, and when Mr. Lyon entered his employ, was operating two large saw mills at Ludington (then known as Pere Marquette), in addition to extensive interests in rolling mills at Wyandotte on the Detroit river, and also the extensive rolling mills at Chicago and at Milwaukee, together with mines in the Lake Superior region, blast furnaces, railroads, and about $2,000,000 of real estate, the Ludington business alone, with its vast tracts of timber land and two saw mills, involving a capital estimated at $1,000,000, while numerous other enterprises involved an immense capital. Upon the death of Captain Ward, it was found that his will provided that the Ludington property, including the two mills and 60,000 acres of land, of which 20,000 acres had been cleared, should become the property of Mrs. Ward and their two children, while the remainder of the vast estate, whose value was estimated at $5,000,000, was left to others. The will, however, was contested by the children of Mr. Ward by a former wife, a compromise being effected later, by which the Ludington lands and property came to the widow and her two children, all the balance, except where subject to special bequest, going to the children of the first wife. In May, 1878, a partnership was effected between Catherine L. Ward, John B. Lyon and Thomas R. Lyon, under the name of Thomas R. Lyon, Agent, for handling the immense business which at this time had grown up in connection with the Ludington operation, and this continued until December, 1881, when John B. Lyon withdrew his interest, and about this time a yard was established at Chicago for the wholesaling of lumber, which, under the title of Thomas R. Lyon, Agent, and under the local supervision of E. K. Hubbard, at once took a position in the Chicago trade second to none of the many prominent dealers and lumber yards of the city, its handling of lumber amounting to from 35,000,000 feet to 40,000,000 feet per annum. The general management of the business has, since the formation of the partnership, remained under the able management of Mr. Lyon, whose consummate skill and business acumen brought success out of the condition of depression and apparent bankruptcy in which, through the general business depression which prevailed subsequent to 1873, it seemed inevitable that the entire estate of Mr. Ward must be involved. The firm acquired about 400,000,000 feet of stumpage in Michigan, located principally in the counties of Mason, Lake, Osceola, Oceana and Newaygo, together with the two mills at Ludington, one of which, designated as the "north" mill, had capacity for the manufacture of 85,000 feet per day, and was built by Captain Ward in 1870; the second, or "south" mill, erected in 1871, was at the time considered the finest mill in the State, its first cost being $146,000, and its capacity rated at 22,000,000 feet per season. Subsequent improvements, and additions of modern and more effective machinery for the more economical manufacture of lumber, increased the capacity of the mills to a cut of 300,000 feet per day. In 1885, the existence of inexhaustible beds of salt rock having been found to underlay the land contiguous to the mills, a salt-block was erected in connection with the mills, having capacity for the manufacture of 700 barrels of salt per day, and this enabled the utilization of a large proportion of the mill offal (hitherto a source of expense) in the manufacture of barrels in which to pack it for market. In connection with the operations in the woods, a railroad, fifteen miles in extent, was constructed in 1880, by means of which the more distant timber was transported to the banks of the Pere Marquette river for floatage to the mills; this road, being of standard gauge and crossing the Flint & Pere Marquette railway, enabled the delivery of the timber at the mill booms, if desired. In connection with the lumber manufacture, the firm owned a fleet of three tow-barges, each having capacity for carrying 750,000 feet of lumber, together with a sailing vessel and a steam tug for the towing of the fleet. In connection also with their business, the company has been recognized as having done much for the advancement of the interests of the city of Ludington, Mr. Lyon, in 1882, having erected a large brick building on Washington avenue, convenient to the north mill, in the front of which is located the large general store of the firm, which occupies the rear of the building with its offices; the building is an ornament to that part of the city, while the business of the general store is recognized as the largest of its class, doing a business of $200,000 per year. In all the departments of their extensive operations the firm employs about 1,000 men.

Mr. Lyon was for many years president of the First National Bank of Ludington; in 1891 he went to Chicago, where he associated himself with Mr. John W. Gary and his sister, Mrs. Cameron, under the style of Lyon, Gary & Company, in the real estate and loan business, their offices being located upon the second floor of the Hartford building, corner of Madison and Dearborn streets. In 1894 these gentlemen acquired an interest in the Commercial Loan and Trust Bank of Chicago (capital $500,000), Mr. Lyon being elected president and Mr. Gary vice-president, their former business being still continued as well, under the old firm designation.

During his residence at Ludington, Mr. Lyon was (1885) elected a member of the Board of School Trustees, and was at once elected its president, holding that position for three years. He was married, October 26, 1875, to Miss Harriet W. Rice of Ludington, three sons and three daughters being the issue, of whom Emily C., born October 11, 1878, John B., born July 17, 1880, Paulina, born April 12, 1882, and Harriet R., born July 8, 1889, are living. As a lumberman, Mr. Lyon early proved his ability to grasp the importance of the rapidly increasing demand for lumber from a constantly accreting population, and, appreciating the value of the pine forests, has had the foresight and business acumen to secure large tracts of pine lands of the more valuable character. As a business man, he is universally recognized as possessing a breadth of view and liberality of thought which is conducive to success, while his integrity of character has won him the confidence and esteem of his business associates. His skill in bringing order out of the apparent chaos into which the estate of Captain Ward at one time appeared to have been irreparably plunged, won for him the plaudits of the business community, and fully evidenced his business ability. In social life he is accounted genial and companionable, possessing an intuitive and far-reaching penetration and comprehension of those subjects which interest the public mind, and give tone to public character.

William Alden Fuller.—The firms of Palmer, Fuller & Co. and Goss & Phillips have probably been more widely known among the lumbermen of the northwest than any other during the past forty years. William A. Fuller, of the former firm, was born in 1836 at Lancaster, Massachusetts. His education was such as was afforded by the common schools of Lancaster, and his native faculties were sharpened by work upon his father's farm, in the intervals of school work. At the age of eighteen, in the year 1854, Mr. Fuller came west and entered the employ of Goss & Phillips, sash and door manufacturers, at the corner of Clark and Twelfth streets, as bookkeeper, which in those days meant not only a care of the books and accounts, but general office work, and looking after all the interests of the firm, from sweeping out the office to a helping hand in the tallying and loading of the incoming material or outgoing product. For twelve years Mr. Fuller continued in this capacity, until in 1866, when he, together with Azariah A. Palmer, was admitted to partnership in the firm, which now became known as Goss, Phillips & Co. This continued, however, but a little over one year, when, in 1867, Goss & Phillips sold out the business to their junior partners, and the house of Palmer, Fuller & Co. was established.

The firm continued to occupy the old factory on the southwest corner of Clark and Twelfth streets until the fall of 1871, when, having during the previous year erected a large and commodious factory on the corner of Union and Twenty-second streets, they removed thither, and here remained until the present time, building up the immense business which has given the house a national reputation. About 1868-9 Mr. George B. Marsh became a member of the firm, Mr. Palmer's health failing to such extent that he was incapacitated for business, his connection with the house being fully severed in 1872, although he survived until 1874. Mr. Palmer had some years previous been associated with Vine A. Watkins in the manufacture of sash and doors at Montgomery, Ill., and in 1872 Mr. Watkins became associated with the business, the firm name of Palmer, Fuller & Co. originating with the incoming of Mr. Marsh in 1867, continuing, in fact, to the present time. Mr. Palmer died in 1874, and Mr. Marsh remained in the firm until 1885, Messrs. Fuller and Watkins continuing to the present time, Mr. Fuller having been the active office man of the firm since its institution in 1866.

Few of the many merchants of Chicago have won more creditable renown, or had more to do with the development of the manufacturing industries of the city, and none have stood higher in the estimation of their fellows. The business of the firm has been a constantly expanding one, and has not been exclusively confined to the manufacturing departments, but, in addition to the extensive planing mill industry, a lumber business aggregating from thirty-five to forty million feet per year, with a shingle trade aggregating an equal number of millions, has placed the firm high in the category of the enterprising lumber dealers who have done so much for the development of the metropolis of the west. Mr. Fuller has been closely identified with the sash, door and blind association of the northwest, serving as its treasurer for several years; he was also repeatedly elected a director of the Lumberman's Exchange, and as a business man holds an enviable position in mercantile circles. He was married in 1860 to Miss Ginervra Walker of Oswego, Ill., and one son and one daughter survive. The son, Leroy W., is now a partner of the lumber firm of Watkins, Fuller & Co., and is expected soon to take the position so long and ably held by Mr. Watkins in the house of Palmer, Fuller & Co.

The John Spry Lumber Company is one of the largest concerns of its kind in the country, its Chicago yards occupying docks and street frontage extending along Ashland avenue from the waterworks to Mud Lake (south branch), the main water front being on Slip A, and the premises having a length of about 3,000 feet. The piling capacity of the yards is 40,000,000 feet, and the company handles from 75,000,000 to 80,000,000 of feet annually. Piling and seasoning the lumber at their mills, so that it is ready for consumption when brought to the yards, the company claims to carry the largest stock of dry lumber in the city, and to be ready at any time to meet any demand for such lumber, and it makes a specialty of high-grade stock, the average value of its entire yard supply having been estimated at more than $20 per thousand. The company's fleet of barges represents an exceptionally large carrying capacity, the manager of the transportation department loading very heavily to reduce the cost of transportation, and the scene at the dock during the busy season is an interesting one. The annual business of this great concern exceeds $1,000,000, and keeps pace in its growth with the development of the city, and its magnificent tributary territory.

John Spry, long president of the John Spry Lumber Company, was born in Cornwall, England, August 3, 1828, and died at his residence in Chicago, February 5, 1891. He came to America in childhood, and became a resident of Chicago at the age of thirteen. Not long after his arrival he found employment in Andrew Smith's lumber yards at $12 a month, a small salary, yet considerable to such an inexperienced boy.

Thus humbly was begun what proved to be a long and, in many respects, remarkable business career. That was the day of small things in the lumber trade of Chicago. The business was confined to a limited district, and the trade territory was comparatively small. In 1855, at the age of twenty-seven, Mr. Spry, then experienced and self-reliant, acquired a working interest in the business of F. B. Gardner. In 1866 he secured a general interest in the concern.

The firm of Gardner & Spry was organized, with H. H. Gardner as senior partner. In 1869 this firm was succeeded by the Gardner & Spry Lumber Company. In 1885 Mr. Gardner retired, and the John Spry Lumber Company was organized. Mr. Spry was president, and with him were associated his sons, John C., S. A. and George E. Spry. Since Mr. Spry's death, John E. Spry has been president, S. A. Spry vice-president and George E. Spry secretary and treasurer.

John Spry, who had been connected with the lumber business for more than forty years, and had been specially interested in the Chicago wholesale trade, was a man of large financial resources and of commanding influence in the community. For years quite prominent in public affairs, he was one of the earliest members of the Board of Trade, was tax collector on the west side in 1849, was a county commissioner in 1888, and in 1890 was a candidate on the Republican ticket for drainage commissioner. A member of the La Salle club, he was also a Mason in high standing, influential in all Masonic circles.

It has been said of Mr. Spry that "he was the living embodiment of honor." In disposition he was genial and kindly, and he made it a rule to say nothing of any man of whom he could not say something good. As a friend or business ally he was always to be depended upon in any emergency, and for home and family he cherished the tenderest regard.

His sons are active business men, who maintain for the concern the high standing their father imparted to it, and who declare that the Sprys will continue in the lumber business so long as the pine supply lasts.

D. S. Pate.—From the earliest time the English government has been the colonizer of many of the wildest portions of the world. Resting, herself, upon an island of limited extent but with a rapidly increasing population, her people found it necessary and very advantageous to leave the island and seek homes in distant quarters of the earth. The continent of Europe was thickly populated, and no schemes of colonization could find a footing there. So America first took the surplus population, though later strong tides were directed toward the luxuriant island of Australia and the ancient peninsula of India. But the tide of English emigration continued to pour its resolute stream into the United States and Canada, and continues to do so to this day.

On the 24th of March, 1839, there was born in Devonshire, England, a boy who was destined, in 1842, to be taken across the wide Atlantic ocean in a sailing vessel by his parents, Thomas P. and Temperance (Davey) Pate. That boy was Davy S. Pate, now one of the most prominent and successful of the lumber merchants of this city. But the jump from the sailing vessel of 1842 to the large lumber yard of to-day is too far, and the span must be bridged by the trials and labors of half a century. That half-century, so full of trying experiences and so replete with successive victories over countless obstacles, sums up the youth, early manhood and middle-age of Mr. Pate. In short, it comprises the better and greater part of his life, though the years have dealt kindly with him, and left him at the age of fifty-three with an erect form and a clear mind.

Back in 1842, when the parents with their little flock landed in the United States, they came west and located at Galena, Ill., which was then a wild place in a wilder prairie country. Nothing but trials, hardships and self-denials awaited the family when they took up their abode in this western town. But they came of a race that neither knew nor would acknowledge defeat, and so they went to work. They were still struggling to get a start when, in 1856, almost the greatest calamity that could have happened to them occurred, for the father unfortunately died, leaving his widow and five children, the eldest of whom was D. S., aged seventeen years. At this time the widow had her little home, worth probably $500, but had nothing else upon which to depend as a bread-winner, save her eldest son, an intelligent, resolute lad. Upon his young shoulders was cast the burden of supporting the family. This he faithfully and bravely did, alone and unaided, until his brother Alexander became old enough to share the burden. These were trying times to the boys, but it was the school of experience which cast them early on their own resources, taught them the worth of money, and gave them their first severe lessons in the problem of life. Indeed, much of their later success has been due to their experience in those early years in that prairie town. The younger brother, Alexander, is now a prosperous merchant, banker and grain dealer in Wellington, Ill.

D. S. managed to secure a fair education in the public schools of Galena, and after his father's death he began to work at the carpenter's trade, which he followed steadily until 1861, all his earnings going to the support of his mother and the younger children. In 1861, the younger children having become old enough to take care of themselves, D. S. determined to branch out for himself, and accordingly came to Chicago, where he secured work at handling lumber on the docks as a common laborer in the yard of Stouffer & Trego, for whom he worked for about six months. During this period, feeling his need of a business education, he had managed to secure a good knowledge of bookkeeping by studying at night the books he had bought of Bryant & Stratton. At this time the firm established a branch yard at Watseka, Ill., and placed Mr. Pate in charge of the same. His knowledge of bookkeeping now enabled him to conduct the business of the yards, correctly and to the satisfaction of his employers. Here he remained until the autumn of 1866, faithfully carrying on the business of the firm, and learning a great deal about the lumber business. He built up a large trade for his firm, and was their trusted and confidential representative. He remained with the company there until they abandoned the yard in 1866, when he returned to Chicago and accepted a position with the lumber firm of Greene & Low as bookkeeper and salesman, and remained steadily in their service until the spring of 1870. It was during this active period that he improved himself greatly by his varied services in the lumber trade. From 1870 to 1873 he served as bookkeeper for the lumber firm of D. F. Chase & Bro., and here again proved the value of his services. By this time he thoroughly understood the lumber business in all its complex details, and felt himself fully able to branch out for himself. Accordingly, in 1873, he and H. W. Chase purchased the interest of D. F. Chase in the business, whereupon the firm became Chase & Pate, and so continued down to May 1, 1892. During this long period they steadily expanded their trade and improved their credit as reputable dealers, and handled large quantities of lumber. Favored by the extraordinary growth of the city and by the country west and northwest tributary to it, and themselves active, practical and skillful business men, they could not fail to come to the front and top. Mr. Pate had come up by slow degrees, step by step, from a poor boy, improving himself by self-study and by the constant application of the ideas which practice had shown were wise, conservative, yet bold and successful. He is one of the few absolutely self-made business men of the city, and his name and credit are high and above reproach.

Their yards were first located at the corner of Cologne street and Archer avenue, but in the spring of 1876 they were removed to Throop and Twenty-second streets, and there remained until the dissolution of the firm, May 1, 1892. In 1884 the firm of Chase & Pate became associated with that of C. A. Paltzer & Company as the "Company" of that large concern, and so remained until June 1, 1892, when Mr. Pate sold his interest in this firm to Mr. Chase, and retired from this partnership which had continued so long and so successfully. His activity, experience, intelligence and honorable dealings, combined with the same qualities in his partners, had been instrumental in making comfortable fortunes for each of them. Soon after his retirement from the old partnership, Mr. Pate established a new and extensive yard, equipped with a large credit and valuable stock, at the corner of Fisk and Twenty-second streets, where he is now busy with a large patronage.

Mr. Pate's active mind and body has led him into other enterprises. In August, 1890, he was instrumental in organizing the Chicago & Tampa Improvement Company, incorporated with a capital of $500,000, of which he was elected president, and still officiates in that capacity. This company owns 120,000 acres of valuable land in Hillsboro county, Florida, where they are opening up many beautiful homes. It is a great resort for wealthy northern families who wish a winter home in a warmer climate, and the company offers special inducements to all such home-seekers. The orange groves in the company's district have already become very large, and the future will show the importance of this locality as an orange harvest field.

In 1889 Mr. Pate was elected president of the Lumberman's Exchange, a mark of high respect by his fellow lumbermen for his ability and distinguished character. He filled the position much to his credit and to the satisfaction of his fellow members of the Exchange. He assisted in organizing the Industrial Bank at Twentieth street and Blue Island avenue, and is one of the stockholders. He is unquestionably one of Chicago's most prominent and honorable business men. He is sociable, and therefore a pleasant companion. His life has been a busy one, but he has shown the prevailing characteristics of the English race to fight his way forward. and with a praiseworthy ambition to aim at the highest mark. Starting in life a poor boy, with little education, and with his mother and his younger brothers and sisters dependent upon him for support, he bent all his energies to the task, and steadily rose through all opposition, until he now occupies one of the most conspicuous and reputable positions in this great city of eminent self-made men. He worked, only a few years ago, on the river docks here as a common laborer, studied, only a short time ago, at night, in order to fit himself for bookkeeping and business; but all these trials brought out the best that was in him, and he became thoroughly practical, self-reliant, thoughtful, observant, and soon was a master of the lumber trade. He deserves high credit for his fine success in life, the legitimate result of honest effort faithfully applied in a conscientious regard for the rights of his fellow men. while asking no more from them than he was willing to accord as their due, and while never failing to read the signs of the times, and to shape his business with a wise perception of the many changes through which the lumber trade has passed since his first connection with it, and for his upright career as a citizen and a business man.

Charles A. Paltzer, son of Jacob P. and Mary C. (Faber) Paltzer, was born in Prussia, November 5, 1845. The family came to the United States in the fall of 1857, resided in New York the succeeding winter, moved to Terre Haute, Indiana, in 1858, and in 1860 to St. Louis, Missouri. Jacob P. Paltzer died in that city in 1866, and Mrs. Paltzer, his widow, in 1890.

Charles A. Paltzer received a very liberal education. In Prussia he attended school until his twelfth year; at Terre Haute, Indiana, for two years; and later at St. Louis, Missouri, where he graduated from the St. Louis University in 1866. The next year he obtained the position of bookkeeper for the steam-pipe and brass-goods house of James O. Alter. Two years later he accepted a similar position with the lumber firm of Thompson, Henry & Company, then of St. Louis. In 1871 Thompson, Henry & Company opened yards at Chicago, and aware of the probity and business qualifications of Mr. Paltzer, placed him in charge of their office there in January, 1873. On April 1, 1874, that firm dissolved partnership, Mr. Henry retiring, and Mr. Paltzer became a member of the new firm of C. C. Thompson & Company. For ten years this firm carried on an immense business here, and conducted also a branch house at Kansas City during part of that time. In April, 1884, the firm of C. C. Thompson & Company dissolved, and Mr. Paltzer formed a partnership with Messrs. H. W. Chase and D. S. Pate, and continued the business under the firm name of C. A. Paltzer & Co., on the same premises. The entire management of this firm's business rested with Mr. Paltzer, as their other business interests claimed the time and attention of his partners. Mr. Chase died in September, 1893, and on April 1, 1894, the business was incorporated as the C. A. Paltzer Lumber Company, with Mr. Paltzer as president, Mr. Pate vice-president, and Mr. W. R. Robbins secretary, and these gentlemen are the officers at the present time. It is worthy of note, as creditable alike to employers and employes, that Mr. Louis Kindt, the present superintendent of the yard, has held that position continuously since 1872, now over twenty-six years. Also, that Mr. John T. Vail, who is in charge of the city sales department of the corporation, has held a responsible position for nineteen years, and that more than a score of other employes have held positions under Mr. Paltzer continuously for from twenty to twenty-five years. The appearance of the company's great lumber depot at Archer avenue and Quarry street speaks at once of business-like methods, and tells the visitor, plainer than words, that the men who direct this business understand it thoroughly. Every device conceivable for the safe and prompt handling of great quantities of lumber is found here, and a large stock is continually kept on hand.

When the Lumber Dealers' Association was organized, in March, 1886, Mr. Paltzer was elected president, and re-elected in 1887. Meantime he was a director in the Lumberman's Exchange, its president in 1890-1, and active in all affairs in which lumber interests were concerned. It was during his term as president of the Exchange that the new organization of 1886 was merged into or consolidated with the Lumberman's Exchange, and the name changed to Lumbermen's Association. The change was made February 28, 1891, and acknowledged March 6, by Charles A. Paltzer as president, and Edward E. Hooper as secretary.

Mr. Paltzer married Miss Clara C. Woodruff, daughter of Walter N. Woodruff of Chicago, December 5, 1878. The lady's father built the Woodruff hotel on Wabash avenue and Twenty-first street, at a time when a majority of citizens calculated that Twelfth street would be the extreme limit of the hotel district at the close of the century; but Mr. Woodruff, who had been successfully engaged in the grain and lumber business, had faith in the city, and the Woodruff hotel stands to-day as testimony of that faith. To the marriage just noted, three children were born, namely, Catherine W., Susan E. and Charles W. Mrs. Paltzer, a charming wife and devoted mother, presides over the happy home, directing the education of their children with that quiet grace and dignity born of culture and refinement. Mr. Paltzer is a member of several civic organizations, whose aim it is to raise the commercial and social standing of this city to the highest plane. His education, his home training, his wide experience in the lumber trade, and his firm adherence to principles of right and justice, mark him as an admirable citizen.

James Fuller Lord.—The death of Major James F. Lord, May 1, 1893, was an event of more than ordinary interest to the lumbermen of Chicago and the northwest, severing, as it did, one of the very few remaining links connecting the inception of the lumber trade with its phenomenal extent of the present. Mr. Lord was born of revolutionary stock in Hallowell, Me., July 15, 1804, and was consequently eighty-nine years of age at the time of his death. It is a significant fact that this old citizen, who was present at the birth of Chicago and witnessed its wonderful development, was permitted to live until the opening of the great World's Fair, which, while showing the progress of the world more markedly than anything else could do, proclaimed Chicago's greatness to the world.

It was in 1832 that Mr. Lord made his first visit here. Though yet young, he was at that time engaged in business for himself. A frame warehouse (the first), then in process of erection, was beginning to tower above the surrounding shanties, most of which were built of logs.

It is not strange that the public should feel a peculiar interest in a pioneer so recently deceased, who belonged to the limited class, whose experience connected with the civilization of a great and populous city, that of a sparsely settled frontier trading-post. Major Lord's parents were Ephraim and Sally (Dennis) Lord, both natives of Ipswich, Mass. Ephraim Lord was a descendant of one of the early settlers of the Bay State, and belonged to the family from which descended Otis Phillips Lord, the distinguished Massachusetts jurist and statesman.

After receiving a common school education, Mr. Lord took up the trade of his father, who was a carpenter, and worked with him until 1824. In that year he left his native place for Boston, where he worked for one year, then went to New York city in the prosecution of his trade. In 1828, in company with another enterprising mechanic, he turned his face toward the far-away territory of Michigan. After stopping for a short time in the then infant city of Detroit, they followed the famous old trail of the Sacs and Foxes as far into the country as Beardsley's Prairie, a new settlement which then promised to attain some importance. To reach this point they had to buy a yoke of oxen and a wagon, by which means they carried their tool chests and other belongings. The distance was 180 miles, and they were twenty-one days on the journey, camping out by the way, for settlers' cabins were few and far between. They remained there during the winter, and after a time Mr. Lord decided to file a claim on a quarter-section of land. He was obliged to go on horseback to Monroe, Mich., for this purpose. On his return journey his horse got away and galloped off into the Indian country. He secured another animal, not without difficulty, and, pursuing his way, fell in with the Indians, who, while offering no molestation, compelled him to travel ahead of, rather than behind, them, so far as they went his way. Other things occurred on his journey back well calculated to be troublesome to a young man fresh from the east, and not accustomed to the peculiarities and vicissitudes of the Indian country, but he reached Beardsley's Prairie in safety, and the following spring was fortunate enough to recover his lost horse, with its saddle and bridle, which some "honest Indian" brought to the settlement and turned over to him. Leaving Beardsley's Prairie that spring, Mr. Lord went to Niles, Mich., where he helped to build the first flouring mill on Dowagiac creek. Two years later he went out to St. Joseph, Mich., a town which had been laid out on the opposite side of Lake Michigan as a rival of Chicago, and at that time actually was of more consequence than the future World's Fair city. He still worked at his trade when there was work to be had in a country where the dwellings were mostly of logs, and was the architect and builder of the first frame house in that town. A few months after his arrival there, he made his first visit to Chicago, already referred to. The scare prevailing at that period, consequent upon the Black Hawk war, had driven most of the early settlers of Northern Illinois into Fort Dearborn for safety. In consequence of the unfavorable impression which Chicago made on him at that time, Mr. Lord returned to St. Joseph, and several years passed before he became permanently identified with this city as a resident and business man. In 1832 a steam saw mill had been built at St. Joseph by McKillop & Deacon, a Cleveland company, the first erected in Western Michigan. It was not a financial success, however, being operated only to a slight extent in supplying the sparse population of that great region, whose demand for lumber was small indeed. Up to 1837, what little work the concern had done, was in connection with the cottonwood and hardwoods in the immediate vicinity. About that time Mr. Lord organized a joint stock company, and purchased the mill and a small tract of pine timber on the Pawpaw river, and, while it lasted, cut and shipped pine to the Chicago market. As early as 1836 he brought to this city lumber for the completion of the Lake house, then the most pretentious hotel in the town, which was cut from the school section of the Pawpaw river.

In 1847, in connection with others, he entered into an extensive contract to furnish for the Michigan Central railroad, then being built, lumber for its bridges, depots, etc. After the contract had been filled a considerable amount of surplus lumber remained on hand, which Mr. Lord and his associates shipped to Chicago, and Mr. Lord was sent there to take charge and dispose of it. In connection with S. F. Sutherland, and under the style of S. F. Sutherland & Co., he opened a yard and began selling the lumber, in any quantity, and as fast as he could. With the coming of winter and the close of navigation, the balance of lumber on hand was sold to A. G. Throop & Bro., and Messrs. Sutherland and Lord returned to St. Joseph, and, in connection with their lumber operations, built a schooner called the "St. Joseph," which at that time was one of the largest craft on the lakes, and which was well known in the Chicago trade for many years.

The mill being constructed on the "upright" or "sash" plan, it was late in the following season before a sufficient quantity of lumber had been manufactured to warrant the opening of another yard in Chicago, which was done in the late summer of 1848, again under the name of S. F. Sutherland & Co., on the north bank of the river at La Salle street. From that time on, until his retirement from business, Mr. Lord was one of the most prominent of those engaged in the lumber trade in the city. His partnership with Mr. Sutherland was dissolved in 1858, and Mr. Lord then became the head of a firm which furnished its share of the material out of which the city was built in the period before the fire. His son, William J. Lord, who died in 1872, was at one time connected with the business. The business, which expanded in proportion to the growth of the city, proved exceedingly remunerative, and he retired with a comfortable fortune. Subsequent investments in real estate added largely to what he had accumulated during the active period of his life, and made him one of the wealthiest men of Chicago.

Major Lord was married in 1832 to Miss Marcia Pepper of Winslow, Mass., who died in 1858 at the family homestead in Chicago, where Mr. Lord also died in 1893, and his daughter, Helen A., a few months later. Of his family of six children but four grew to manhood and womanhood, and of these only Edgar A. Lord is now living. The latter, who is one of the leading representatives of his father's calling in Chicago, was born at St. Joseph, Mich., in 1843, and has been a resident of Chicago since five years of age. He was educated in the city schools, and learned the lumber business with his father. In 1872 he became a member of the firm of A. T. King & Co., who established a yard at Lumber and Canal streets, and entered upon a strictly yard business. Upon the death of Mr. King, two years later, his interest was acquired by Abbott L. Adams, and the business was continued by Adams & Lord, with yards at 400 Lumber street, until 1882, when Adams & Lord was succeeded by the Lord & Bushnell Company, and the yards were located at the Illinois Central pier. Mr. Bushnell died in 1890. In 1891 the yards were removed to Fisk and Twenty-second streets, where, under the management of Mr. Lord, is carried on one of the most extensive yard businesses in the city. Mr. Lord is well and favorably known in business circles, and is a member of the Calumet and Washington Park clubs. He married Miss Mary B. Hoyt of St. Joseph, Mich., who died January 1, 1885. They were married in 1868, and to them a son and daughter were born, James F. and Mary D.

Major Lord was a resident of the west from the period when the Indians roamed free and hunted the game, which was then plenty, the days when the white man was in the minority and Chicago was but a hamlet of a handful of citizens, and was spared to see and appreciate the transformation of the wilderness to a well-settled country, and Chicago a World's Fair city of 1,500,000 inhabitants. His business experience covered the period from the time when Chicago demanded but 20,000 feet of lumber per year to the present consumption, evidenced by a receipt of 2,250,750,000 feet in 1892. He is remembered as a progressive, enterprising man, and as one to whom the city is greatly indebted for the reputation which has made it famous throughout the world.

Moses Frank Rittenhouse, of the firm of Rittenhouse & Embree, was born August 14, 1846, at Lincoln, Ontario, his father being one of the old settlers of Niagara district, whither his grandfather emigrated from Philadelphia in 1800. Receiving his primary education in the common schools of the neighborhood, he was, at the age of eighteen, sent to Chicago for a course at Eastman's Business College, and spent a summer in the employ of the inspection firm of Geise & Cantine as tallyman, and in 1865 was employed by McMullen, Funk & Co., at 10 Canal street, as measurer and shipper for that firm, and, when, a year later, the firm dissolved, he continued with its successors, McMullen & Officer, until the spring of 1867.

He then, for a year, was in the employ of B. L. Anderson & Co. as bookkeeper, that firm being then located at the foot of Fisk street. For the succeeding fifteen years he was employed by the J. Beidler & Bro. Company, corner Beach and Taylor streets, and in 1883 associated with J. R. Embree in forming the firm of Rittenhouse & Embree, with a yard corner of Thirty-fifth and Ullman streets, and in 1888 the firm erected a planing mill, and later a commodious dry-kiln. Beginning with four machines, the business has increased to twelve of the most modern machines in use in the planing department. In 1890 the firm added hardwoods to their already extensive pine trade, and while engaged largely in the latter branch, now make more of a specialty of maple flooring and hardwood interior finish, their business in this department requiring 8,000,000 to 10,000,000 feet of hardwood annually, their pine trade reaching 25,000,000 feet per year. Mr. Rittenhouse was married in December, 1871, to Miss Emma Stover of Quakertown, Pa., and has three sons. The firm has long been connected with the Lumberman's Exchange and Association. Mr. Rittenhouse is a member of the Sunset club, and in church relationship is a Presbyterian.

J. R. Embree.—The vast forests which have covered so large a part of America, were an apparent obstacle to settlement, and in early days were transformed into houses, barns, fences, implements, household furniture, vehicles and the million and one things that go to make up the tools of civilization. At first the operation was performed with a lavish hand, and, indeed, the land was wanted so much more urgently than the forests that what would now be fortunes were sent up in smoke in order to clear the way. In these later years, however, conditions have been almost reversed, and the timber, if not wanted more than the land, has become very precious, and the men who handle the vast business are among the empire makers of these days, transforming woodland into smiling prairies, and furnishing the materials for cities, towns and villages on the less favored plains of the west.

Of the leading forest handlers of Chicago is Mr. J. R. Embree, the well-known president of the South Side Lumber Company of Chicago. The Embrees are old-time Marylanders. Israel Embree was born in that state, and spent his boyhood in Ohio, where he married a daughter of the Buckeye State, in the person of Miss Mary A. Vernon, a native of Belmont county. They were settled on their farm in Morgan county in that state in 1832. In 1855 their son, the subject of this sketch, was born, on March 14, being the youngest of a large family. The father lived to the ripe age of sixty-two years, but Mrs. Mary A. Embree, the mother, has far surpassed the ordinary allotment of three-score and ten years, and now lives at Chesterhill of her native state at the unusual age of eighty-four years. Their son, J. R. Embree, received his early education in the public schools of Morgan county, and, desiring a business career, he went to Meadville, Pa., where he graduated from Bryant & Stratton's Business College of that city in 1877, when but twenty-two years of age.

Mr. Embree became interested in Iowa at this time, and removed to Grinnell, where he engaged in building and contracting for a time, and taught school the following winter.

His active interest in lumber dealing began the following spring, that of the year of 1878, when he entered the employ of the Grinnell firm of Langley & Goss as bookkeeper in full charge of the yards. His fifteen months in this position was so successful that he at once became convinced of his peculiar fitness for a large career in its management, consequently he sought the larger opportunities of a metropolitan lumber center like Chicago, and became a bill and shipping clerk for the T. R. Lyon firm of lumber merchants at the Throop street bridge.

By the early part of 1881 Mr. Embree determined to engage in operations in the lumber trade independently, and in February joined with a friend in forming the firm of C. B. Flinn & Co., as junior partner. This new firm opened yards at Griswold, Iowa, of which Mr. Embree had charge for a year, placing it on so good a foundation that a man was left in charge and Mr. Embree returned to Chicago, where other yards were opened at Thirty-ninth and Halsted streets.

Another year passed, and, after selling the Griswold property, the entire firm possessions passed into the hands of Mr. Embree alone. His progress now was still more rapid, and as solid as rapid. A year later he took a partner in the person of Mr. M. F. Rittenhouse, and opened a new yard at Thirty-fifth and Ullman streets; this was followed by still another yard at Sixty-third and Wallace streets in the year 1886, and the Sixty-third and Wallace streets business was incorporated under the title of the South Side Lumber Company, of which he is president, and whose main office is at Sixty-third street, with yard and dock at South Chicago. He is also vice-president of the Rittenhouse & Embree Lumber Company, and is president of the First National Bank of Englewood, a position to which he was elected in 1890. The operations of the South Side Lumber Company, however, occupies his chief attention, for, with the old yards and the new one at South Chicago, this company handles a business of 15,000,000 to 20,000,000 feet of lumber annually. These successes of Mr. Embree have been due not alone to his insight into, and a wide familiarity with, the lumber business, but to his pronounced executive ability, and his far-sighted powers for development. In finance he is keen and cautious, and has the full confidence and esteem of all who know him.

The year 1881 not only witnessed his business partnership, but his union to an accomplished Iowa lady, Miss Mary Clayton, of Atlantic, who graces their beautiful Englewood home at 6631 Harvard street. Their three children are Clayton J., Mamie H. and Rachel.

Mr. Embree is a strong believer in the principles of the Republican party, and has an influential voice in all public affairs in which he chooses to interest himself.

RACINE, WIS.

While Racine was never to be noted as a lumber manufacturing point, it was, from the fact of being one of the earliest settlements of importance on the shores of Lake Michigan, for several years a rival of Chicago and Milwaukee in supplying lumber to the incoming settlers upon the fertile lands of the adjacent country. The first lumberman at Racine was Daniel Slauson, who opened a yard in 1840, at a point on Main street where the Lathrop block now stands. In 1842 Roswell Canfield, more extendedly mentioned in connection with the history of Manistee, Mich., established a yard, which he continued to operate until his death in 1860, in connection with his sons Edmund and John, and for a time with his son-in-law, ——— Smith, with yards, in the later years, at Chicago, and mills at Manistee, Mich., and interested during the earlier years, with Chauncey Hall and Chauncey Lathrop, in mills at Three Rivers, Wis., whence supplies were obtained previous to the building of mills at Manistee, Mich. For many years, also, he was connected with Warren Wheeler in the operation of retail lumber yards in the interior, upon the line of railroad. Mr. Canfield was the victim of an accident while walking upon the railroad track in 1860, and the business was closed out to Isaac Taylor, who was for some years associated with various lumber yards in the city. Soon after Messrs. Slauson and Canfield began operations, James Farnsworth opened a yard, which, after his death, was operated by his brother, George Farnsworth, now of Oconto. About this time John G. Conroe opened a yard in connection with W. H. Lathrop, who is still a resident of Racine.

In 1844 or 1845 N. Pendleton and Isaac Taylor started a yard and purchased some small mills at Neshoto on Two Rivers, and continued together until in 1855, when Mr. Taylor sold his interest, and, joining Daniel Slauson, the firm purchased the mill of John Volk at Kewaunee, whence came their supplies. This partnership, while highly profitable, was dissolved in 1857, and the property owned by them at Kewaunee and elsewhere was divided. At this time each of the parties owned a separate saw mill, and the Slauson mill burning in 1863, Daniel and his brother, James R. Slauson, purchased the Taylor mill and lands. In 1865 both Daniel Slauson and Isaac Taylor died. Isaac Taylor was, soon after the dissolution with Slauson, joined by James H. Kelley and George Murray, in the firm of Taylor, Murray & Co., which continued until the death of Taylor, when the firm of Kelley, Murray & Slauson (George W.) succeeded, purchasing the interests of Daniel Slauson (deceased), continuing until 1877, when Murray & Kelley purchased the Slauson interest, and George W. Slauson started an independent yard, which, a few years later, was purchased by Jones, Knapp & Co., who were burned out in 1882, and wound up their business. In 1849 Riley & Son operated a yard on a small scale.

In 1852 S. B. Peck opened a yard, which he operated for about twenty years. In 1856 James R. Slauson opened a yard, which he operated until 1881. In 1870 B. F. Weeks and J. H. Kelley formed the firm of Kelley, Weeks & Co., which, with an extended wholesale trade, continued until 1887, when the firm became J. H. & F. R. Kelley (father and son). In 1865 M. E. Tremble and Reuben Doud established a yard, and Mr. Doud dying in 1866, Mr. Tremble carried on the business until 1881, when it was purchased by O. R. Johnson and P. B. Bates, who, later, were succeeded by Bates, Fish & Co., who discontinued in 1881.

Racine has always been a wholesaling point, and one of considerable importance, through its rail facilities for reaching interior points in Wisconsin, Illinois, Iowa, Missouri, Nebraska and Dakota. It has also enjoyed a large local trade with an adjacent fertile country, and contained many yards which did not aspire to do a wholesale shipping trade, among which was that of Peck & Emerson. About 1880 Jones, Knapp & Co. bought the business of George W. Slauson, Knapp later selling his interest to L. P. Monroe; Jones, Monroe & Co. did not last long, Monroe selling to his partner, and the firm changing to J. V. Jones & Co., who not long after failed, and were succeeded by the West Shore Lumber Company, who are still operating a large yard. In 1868 Bates & Hoag had a yard, operating more heavily in shingles from their mill at Kewaunee, which they sold by cargo and car-load lots.

The hardwood trade of the city was of but slight importance previous to 1880, when C. F. Wright established a yard of considerable extent, and, later, yards were operated by L. A. Nelson and —— Williamson. With the incoming of large wagon factories, and agricultural implements and other industries, the hardwood trade of Racine has become quite an important factor, while probably the larger part of the supplies are shipped direct from the mill to the manufactories in Racine.

James R. Slauson of Racine (elsewhere referred to in connection with Manistique) was born at Walkill, Orange county, N. Y., October 23, 1825, to Daniel and Elizabeth G. (Sellech) Slauson, natives of Fairfield county, Connecticut. The family left the east on May 1, 1838, via the Erie canal, which was then the great thoroughfare of western travel, and, after a six-day journey, landed at Buffalo. Here they took the steamer Pennsylvania for Racine, but as Grand Haven was a more important point on the lakes at the time than Racine, or even Chicago, the boat visited that point to land George R. Roberts, who later was one of the leading lumbermen of Chicago, and then proceeded to Chicago, and on its return trip landed the Slauson family at Racine, reaching there May 18, 1838. Purchasing some land one and a half miles from the village, a log hut was erected, some land cleared up, some small crops raised, and then a dwelling-house was built, a routine which well exemplifies the custom followed by a majority of the settlers of that day in the new country of the west. In 1840, his father having opened a lumber yard at Racine, James, now fifteen years of age, became his father's assistant in its management. In 1847, having met with a serious accident the year before, and not being able to work, although able to travel, James was sent by his father to dispose of some lands which, as early as 1836, he had purchased in Kent, Shiawassee, Washtenaw and Saginaw counties, Michigan, and after traveling all over the then known portions of the State on foot, reaching Detroit in July, he concluded to keep an appointment at Ashtabula, where he met and married his future wife, and, returning to Racine, entered the employ of the lumber firm of N. Pendleton & Co. In 1852 he went to Saginaw, and engaged in logging on the Flint river for several years. During a visit to Racine in 1854, he made a trip to Kewaunee, Wis., and learning that John Volk, who owned the mills at that place, owned no timber lands, he, in connection with his father and Isaac Taylor, prospected and purchased a large quantity of timber lands, and soon after purchased the Volk mill, and in 1856 removed to Kewaunee to take charge of the property, remaining until 1862, when, his father's health failing, he removed to Racine and took charge of the business at that point, selling the property in 1866 in the settlement of his father's estate, his father having died in 1865. The same year he opened another yard, and operated it for a year, when, in 1867, in connection with C. H. Cunningham and E. B. Deane, he purchased from Cutler, Witbeck & Co. the business of the Chicago Lumbering Co., with their mills and timber at Manistique, Mich., acquired by those parties through C. F. Harvey of New York, who had bought out Spinney & Boyd (two Illinois men), and were operating the mills. In 1872 he sold the Manistique property to Fox & Weston Bros. of Painted Post and Olean, N. Y. (with whom the Colvilles were later joined), who are still operating it. In 1874 Mr. Slauson opened another lumber yard at Racine, which he operated until 1881, when he closed it out, and was elected president of the Racine National Bank, an office held by him until 1885, since which time he has practically retired from business.

Mr. Slauson has been quite extensively interested in the marine of the lakes, having, in 1865, purchased the barque "Red, White and Blue," and later the schooner "A. P. Nichols," and in 1867 he built the schooner "Minnie Slauson," which is now owned by Chicago parties, and which, in 1897, thirty years after launching, and without having been rebuilt, carried grain cargoes; a remarkable record for a wooden vessel, and one showing the staunch character of the vessel when she left the stocks and, as well, the durable quality of Wisconsin oak.

Mr. Slauson, in 1888, suffered two strokes of paralysis, notwithstanding which he is, at the age of seventy-two years, to be accounted among the clear-headed and most enterprising citizens of Racine.

CHAPTER XLVII.

BULLETIN NO. 16, U. S. FORESTRY DIVISION OF THE BUREAU OF AGRICULTURE.—FORESTRY CONDITIONS AND INTERESTS OF WISCONSIN.—THE PAST, PRESENT AND FUTURE CONDITION OF PINE AND HARDWOOD, WITH STATISTICS AND ESTIMATES.

BY the kind permission of B. E. Fernow, Esq., chief of the Division of Forestry of the United States Department of Agriculture, the historian is enabled to present copious extracts from Bulletin No. 16 of that department, prepared in 1897 by Mr. Filibert Roth, who, under the auspices of the department, supplemented by the officials of the State University of Wisconsin, spent three months in a careful research of the conditions past and present of the Wisconsin forests, and presents the results of his investigation in a very cogent and lucid manner, arriving at very much the same results and general conclusions as have been portrayed by the historian in the preceding chapters.

Quoting from Bulletin No. 16, viz:

A survey of the forest conditions, like the one herewith presented for the state of Wisconsin, must necessarily be made in the form of a census or canvass, the special object of which shall be to collect the knowledge of the woods, and the experience in actual logging operations of several hundred men, and to secure a better interpretation of this information, as well as a proper insight into the forestal conditions not usually observed by woodsmen, through personal inspection of typical localities in every county.

From this it follows that all estimates of areas and yields represent the knowledge of the best-informed persons, and a fair degree of correctness may be claimed for the same, for the reason that each district, at least every county, is represented by a number of competent men, the writer being enabled by personal inspection to weigh, verify, or harmonize conflicting statements. The greatest help came from the practical woodsmen, who, in all parts of the territory, kindly assisted, both by verbal information and by the use of their exhaustive "minutes," many of which fill volumes and represent an amount of detail information such as exists for but few parts of our country. * * * * *

The territory covered is that part of the State lying north of a line from Green Bay to the mouth of the St. Croix river, with the counties of Portage, Wood and Jackson as southern projections. It involves twenty-seven counties, with a total land area of nearly 19,000,000 acres, or about 53 per cent of the entire State, and contains almost all of the present supplies of lumber-size timber of both pine and hardwoods remaining in Wisconsin.

Topography.—Over 90 per cent of this territory is a broad slope, which rises gently from the southeast, south and southwest to a flat divide running near to and parallel with the south shore of Lake Superior. About 9 per cent is occupied by the more abrupt slope from this divide to the lake.

In going from east to west the divides between the several large rivers which drain the larger slope are very gradual, almost imperceptible, and in some cases are entirely lost in labyrinths of lakes and swamps. Hills over 300 feet high from their base are scarce; a few "mounds" or isolated steep hills with extremely narrow bases rise out of the sandy plains of Jackson and Clark counties, and a few larger, more massive hills occur in the valleys of the Wisconsin, Chippewa and St. Croix rivers, and there is a range of low, broad hills which form the crests of the Iron and Copper ranges, but on the whole the hills and hilly tracts do not occupy over 5 per cent of the total area, while about 45 per cent is level upland and about 50 per cent is rolling country, of which a considerable portion is steep rolling "kettle" or "pot hole" land.

Soils.—The greater part of this area is covered by deep grayish clay and loam soils, bearing everywhere a forest of mixed hardwoods or hardwoods and conifers. A narrow belt of fertile "red clay" land skirts Lake Superior and is stocked with a unique mixture of conifers and hardwoods, remarkable in the species which are associated, resembling more the regular pinery of the sandy lands than the mixed woods of the loamy soils. A very variable mixture of loam and sandy loam overlies the land about Green Bay; also parts of Chippewa, Dunn, Barron and Polk counties. About Green Bay this land bore a very heavy forest of pine with a fair mixture of hardwoods. In the western counties part of it was openings and part bore heavy pine forests. Throughout this area the presence of sand is indicated by the characteristic white birch. Sandy lands, continuous with the sands of Waushara, Adams and Juneau counties, form the southern edge of this district through Portage, Wood, Jackson, Clark, Chippewa and Dunn counties. These sandy lands are either oak and jack pine openings, i. e., brush prairies scatteringly covered by low, bushy oaks and dense groves of small jack pine, or else they are regular pineries covered by dense stands of valuable pine, without hardwoods. * * * * *

In the aggregate the four several sandy districts occupy over one-fourth of the entire area under consideration; they are generally pine lands proper, being covered with dense and almost pure forests of pine, both white and red (norway), and only in small part stocked with jack pine. The grayish to reddish-gray soil and subsoil of these sandy areas are not generally differentiated; they are usually of great depth, of medium to fine grain, and contain, over more than two-thirds of the area, sufficient clayey matter to deserve the name of loamy sand. These soils support a luxuriant growth of pine, but are unsuited to hemlock and hardwoods, the latter being represented only by the white birch, poplar (aspen), and some stunted maple. The most characteristic plants of the cut-over lands of these sandy areas are the jack pine, scarlet oak, and sweet fern, while the white birch is common to all loamy sands, but does not thrive on the poorest soils. * * *

These general outlines will require much modification in a detailed description. Strips of sandy land follow up the rivers, especially the Wisconsin and its tributaries; small islands of loamy soils occur in all three of the large sand-land districts, while patches of heavy clays and lighter gravelly soils occur in all portions covered by gray loams. The swamps, i. e., all poorly drained tracts stocked with tamarack, cedar, spruce, or bare grass marshes and moss bogs and occupying nearly 12 per cent of the area, have for the most part a clay bottom and furnish a good soil, especially suited to hay crops. For a fairly accurate account and map of the soils of this State see the "Settler's Handbook of Northern Wisconsin," by Prof. W. A. Henry, University of Wisconsin, Madison, 1895.

Grouping the land from the farmer's standpoint, it would appear that about 20 per cent of the area is good farm land, about 40 per cent medium, while nearly 40 per cent is either not fit at all or only doubtfully suited to farming and should by all means be left to forest. In such a classification great divergence of opinion naturally prevails. Most estimates increase the good farm land proportion at the expense of the medium land, but we have preferred to adhere to the above conservative classification.

The climate is cold, the winters are long, spring is almost wanting, summers are short but warm, and the fall is long, cool, and delightful. To illustrate the climate it may be said that the black walnut and hickories are wanting, while the timber oaks, both white and red oaks, are replaced by birch in all but the southern and southwestern part of this territory. Corn is raised with difficulty except in the south and the drier western part, while fruit trees, even apples, do not prosper in the greater part of north Wisconsin.

The precipitation over the State is about thirty-two inches per year, of which 60 per cent falls in summer and autumn.

Besides furnishing ample drainage, the basins of the Chippewa, Wisconsin, St. Croix, and Black rivers, which drain 70 per cent of the entire area, are covered with the most perfect network imaginable of small streams specially suited for purposes of driving timber. The rivers emptying into Green Bay also "drive" quite well, but have required more improvements, while those running into Lake Superior are largely unfit for driving.

Of the 18,500,000 acres of land contained in this north half of Wisconsin a little less than 7 per cent is improved; 24 per cent is held by actual settlers, the greater part of which falls to the counties along the southern and southwestern edge of this district; the United States holds about 5 per cent (2 per cent being Indian reservations); the State holds less than 2 per cent; the railways hold a little over 5 per cent, while the counties hold about 1.5 per cent in tax deeds, and about five times this amount conditionally on tax certificates. Of the 63 per cent owned by private non-residents, fully 80 per cent, i. e., 50 per cent of total area, or 25 per cent of the land of the entire State, is held by lumbermen.

According to the report of 1896 the State owns 398,103 acres of land, of which about 90,000 acres are situated in Burnett and Forest counties, and over 100,000 acres in Vilas, Oneida, and Price counties; the bulk of these 190,000 acres is swamp and forest soils, the latter sandy pinery, mostly cut and burned over, since otherwise the low price at which they are held would make them cheap timber property. All these lands have come into the possession of the State by cession from the Federal government.

FOREST CONDITIONS OF THE PAST.

An uninterrupted forest, extending from Michigan through Wisconsin into Minnesota, originally covered almost the entire surface of these twenty-seven counties. Along the southern and southwestern border this forest faded into oak and jack pine "openings," and, in places, gave way to regular prairies. Generally, it was a mixed forest of white pine and hardwoods on all loam and clay lands. It approached the regular pinery form on the tracts of sandy loam and the red clays of Lake Superior, and it was invariably pinery proper, generally a mixture of white and red (norway) pines, on all sandy and loamy sand districts.

Along a line extending approximately through range seven west, from Lake Superior to township thirty-one north, thence to the southwest corner of Marathon county, and thence east to Green Bay, this great forest changed in character. To the east and north of this line the hemlock joined the hardwoods and pine on all gravelly clay and loam lands. The birch (not white birch) disputed precedence among hardwoods, so that we may designate the forest as birch forest with admixtures. The red oaks were thinly scattered and the white oaks practically wanting. To the south and west of this line the hemlock generally did not grow at all, the birch became scattering, white oaks were abundant, and the oaks gave character to the hardwood mixture, making the bodies of pure hardwoods, which were much more common on this side of the line, distinctly oak forests.

Along the southern and western boundaries of the forest (in Portage, Dunn, St. Croix, and Polk counties) the dense cover of a variety of tall hardwoods and conifers gave way rather suddenly to monotonous brush-woods, composed of scattered bushy oaks, either alone or mixed with jack pine.

In almost all parts of the mixed forest of the loam lands the hardwoods formed the body of the forest and the conifers the admixture. The hardwoods were represented by trees of all sizes, from the seedling or sprout to the mature timber tree; they formed nearly all of the undergrowth, and this hardwood forest showed every indication of thrift and permanence. The white pine—red (norway) pine did not grow on these loam lands—and hemlock, on the other hand, were represented almost entirely by mature old timber standing isolated in groups or small bodies among the hardwoods. Saplings, bushy young trees, and seedlings were comparatively scarce, an active reproduction was evidently not going on, and there is every reason to believe that both were losers in a long fought struggle for possession of the ground in which a change in the general moisture conditions probably exerted considerable influence. For white pine this was most conspicuous in the southern counties (Marathon, Langlade and Dunn) and on the heaviest soils, where in many places the hardwoods had entirely succeeded in crowding out the pine, but wherever sand or gravel discouraged the hardwoods (in Wood, Barron, Price and Sawyer counties), the pine held more nearly its own, and formed a fair proportion of the sapling timber.

The thinly scattered balsam and the less frequent spruce appear to have occupied the same position as the pine and hemlock, but it was naturally much less important and conspicuous.

In the regular pinery of the sandy soils the pines predominated, the hemlock was entirely wanting, and the hardwoods were scantily represented by small white birch, aspen and maple, which were mixed with the young pine; these deciduous trees were killed out in the dense stands of mature timber, but re-appeared where the superannuated pines were dying off and the cover of their shading crowns was broken, as in some places in Oneida, Vilas, Marinette and Bayfield counties.

On the better loamy sands the pine forest was a mixture of white and red (norway) pine, with occasional patches (temporary?) of jack pine (Vilas and Oneida), but on the poorer sands the red (norway) and jack pine were often alone (pure growth), either one or both together forming forests of considerable extent, usually with hardly any undergrowth or admixture save some scattering scrub oak. This was the case in barrens of Bayfield, in Douglas, Marinette and Portage counties.

The greater part of the swamps of North Wisconsin were well stocked with dense thickets of tamarack, cedar (arbor vitae), and some scattering spruce. The cedar (arbor vitae) prevailed in the swamps of the eastern part, especially those of the sandy loam lands along and near Green Bay, while the tamarack had undisputed possession of the swamps of the southern and southwestern part, and also covered part of the swamps of the openings. The swamps of the central, northern and northwestern part were stocked without regularity, some with tamarack, others with cedar, and in many of them both trees occurred together. The spruce, as a runty shrub or half-tree, covered many open bogs, and was scattered in the swamps, especially within the moister hemlock area.

At present these forests are materially changed; more than one million acres have been cleared and put in cultivation. During forty years of lumbering nearly the entire territory has been logged over. The pine has disappeared from most of the mixed forests and the greater portion of pineries proper have been cut. There is to-day scarcely a township in this large area where no logging has been done. In addition to this, the fires following logging operations or starting in the new clearings of the settler have done much to change these woods. Nearly half this territory has been burned over at least once; about three million acres are without any forest cover whatever, and several million acres more are but partly covered by the dead and dying remnants of the former forest.

In the better hardwood areas (Taylor, Marathon, Langlade counties) the change is least conspicuous; the former existence of the pine is scarcely noticed, and the forest is damaged by fire only where it borders on "pine slashings" or spots where quite a body of pine had occurred and had been removed. On the lighter, gravelly loam and sandy loam soils, where the pine formed a heavier admixture, the remaining hemlock and hardwoods are badly damaged and often over extensive tracts (parts of Price, Chippewa, Sawyer and Washburn counties) entirely killed. In most of the pinery areas proper (Oneida, Marinette, Washburn, near lake at Ashland and Bayfield, and in Douglas county) the repeated fires have largely cleared the lands of all the slashings. In these districts large tracts of bare wastes, "stump prairies," where the ground is sparsely covered with weeds and grass, sweet fern, and a few scattering runty bushes of scrub oak, aspen and white birch, alternate with thickets of small pine (often jack pine). which, in spite of repeated fires, have escaped destruction or have re-established themselves. Nor have these changes been restricted to the upland forests. The swamps, too, of every county have suffered from fires, and it is in the dense tamarack and cedar swamps of the sandy areas where some of the worst fires have had their start, and where the most complete destruction has taken place (as in Oneida, Price, Chippewa and Marinette counties).

In the accompanying map an attempt is made to show the present forest conditions, as well as to give some notion of the former extent and character of these woods. The areas of pinery proper, distinguished by red color, represent the pine forests of almost pure growth, without merchantable hardwoods and hemlock, covering the sandy districts of this region. The island tracts of mixed forest on heavier soil are not shown, and in the same way the numerous small tracts of regular pinery scattered through the great body of mixed forest, particularly along the rivers, were left out, partly for sake of clearness and partly because their exact limits were not ascertained.

The hardwood mixed forest, distinguished by green color in three shades, to indicate differences of density or yield, is divided by a red line into two parts, the hemlock and birch area on the north and east of this line and the oak woods west and south.

The existence of pine is indicated by red signs, the plus sign (+) being used where it still exists in considerable quantities, the minus sign (—) where it has been cut out.

Where pine predominated, the signs of the red circle with and without a cross, denoting present and former conditions, are employed.

Where the hardwoods are largely cut, culled, or destroyed by fire, the minus sign in black is used, while jack pine and jack oak are in all cases indicated, the one by red and the other by green (V sign).

CONIFEROUS SUPPLIES.

The conifers, particularly pine, formed solid, almost pure forests, over more than 30 per cent of the area under consideration, besides hundreds of groves of smaller extent scattered throughout the entire area of mixed forest. In addition, they formed the most conspicuous part of these mixed forests themselves, so that the name of "pinery" was applied to the entire body once covering this area. The conifers covered especially the poorest land; they stocked the barrens, the light sands, the roughest gravel lands, and clothed the swamps wherever the latter permitted of any tree growth. Besides forming the bulk of the forest growth, the chief conifers, white and red (norway) pine and hemlock, grew to larger size and better shape, yielded more material, and were easier logged, transported, and sawed, and their products found a much more extensive market than those of the hardwoods. In the total amount of saw timber the conifers originally excelled the hardwoods about as five to one, but at present all the conifers combined furnish only about twice as much material as the hardwoods.

WHITE PINE.

Past.—The white pine occurred in nearly all parts of this area. In most counties it was found in every township on almost every section, and though checked, apparently by a lack of humidity, at the "openings," it followed all the streams—Wisconsin, Black, Chippewa, St. Croix, etc., a considerable distance beyond the limits of the forest. Generally, it seems quite independent of the quality of the soil. It grew as fast, as steadily, and to as large proportions on the sandy and gravelly lands along the Flambeau, Chippewa and Wisconsin, as on the heavier soils of the divides and the famous Wolf river basin.

The yields naturally varied with size and number of trees per acre. They were largest in mature stands of pure growth, such as may be seen in parts of Oneida and Vilas counties, where as much as 2,000,000 feet are cut from forty acres, and where single acres might be selected that would cut 100,000 feet B. M. The yield is naturally smaller in very old timber, even in the pinery, where the stand is broken, and still more so in the old and scattered timber of the mixed forest, where often but one or two trees were found to the acre. A yield of 1,000,000 feet per forty acres, or 25,000 feet per acre, was, and is, considered a very good yield, and, generally, the cut is less than half this amount. In all these wild woods the ground is irregularly covered, and almost every forty-acre tract has its bare places without merchantable timber; therefore all yield figures per unit are somewhat misleading. Entire townships (23,000 acres) are known to have cut over 400,000,000 feet per township, while 200,000,000 per township have been accounted for in the output of the several mills for the entire area of Wood county, and a cut of about 125,000,000 per township is recorded for the Wolf river above Shawano. For comparison with present supplies, an attempt is made, in the following table, to estimate the original stand of pine for the several river basins. The figures are by no means high, and have been verified, at least, for portions of every basin, as explained further on.

ORIGINAL STAND OF PINE IN NORTH WISCONSIN.

Only the 27 counties visited are involved here.

Name of River Basin.	Number of Townships Stocked.	Yield per Township (million feet.)	Yield for river basin (million feet.)	Yield of River as per cent of total per cent.	Present stand, (million feet.)	Remarks.
Black	40	225	9,000	7	250	
St. Croix	100	125	12,500	9.7	3,500	Considerable jack pine barrens.
Red Cedar	40	200	8,000	6.2	475	
Chippewa	175	200	35,000	27	3,500	
Wisconsin	172	175	30,100	23.1	2,800	Much hardwood area.
Wolf	60	125	7,500	5.8	475	Do.
Oconto	28	125	3,500	2.7	150	Do.
Peshtigo	27	150	4,050	3.1	500	
Menominee	47	150	7,050	5.4	1,500	Only Wisconsin side.
Rivers to Lake Superior	76	150	11,400	8.8	4,200	
Rivers to Green Bay	7	200	1,400	1.1	....	
Total	772	....	129,400	....	17,400	

Of these 129.4 billion there is approximately—

	Billion feet.
Standing at present	17.4
Cut between 1873 to 1898	66
Probable cut 1840 to 1873	20
Accounted for	103.4

Leaving about 26 billion feet as probably wasted, chiefly destroyed by fire.

Present.—In considering the present supply of pine, both white and red (norway), of which fully 80 per cent is owned by lumbermen, it must be borne in mind that, in spite of many years of logging, but few townships of the better stocked regions, outside of settlements, have been logged clean, and counties like Chippewa, Clark, Marathon, and even Wood, still continue to furnish large quantities of pine logs of all sizes. It is also interesting to note in this connection that it is not so much a lack of good logs, but the fact that of late everything is cut clean, which has reduced the average size of logs to half of what it was twenty years ago. In ascertaining the standing timber it is especially the fragmentary or culled condition of the forest which makes general or wholesale estimates difficult, and causes the opinions on pine supplies to vary within such wide limits. "Most men know little about what their neighbors have," and "the man whose pine supply is nearly at an end, and who finds it difficult to buy more stumpage, thinks that everybody shares his trouble." These two statements, variously expressed, may be heard in many places, are readily verified in every county, and fully indicate the difficulty.

The figures in the following table represent the results of a diligent and careful inquiry into the present condition of supplies. It is believed that, though somewhat higher than those of the majority of estimators, they are still quite conservative in the aggregate and justly apportioned among the several counties.

STANDING PINE IN NORTH WISCONSIN.

Expressed in million feet, B. M.

County.	Million feet, B. M.	Remarks.
Ashland	300	
Barron	150	
Bayfield	3,000	
Burnett	200	
Chippewa	500	
Clark	200	
Douglas	3,500	
Dunn	20	
Eau Claire	50	Canvassed only for its pine.
Florence	150	
Forest	500	
Iron	400	
Jackson	100	
Langlade	150	
Lincoln	250	
Marathon	200	
Marinette	1,500	
Oconto	75	Probably too low, but left so in deference to good authority.
Oneida	1,200	
Polk	240	
Portage	20	
Price	200	
Sawyer	2,000	Believed to be 2,500 by good authority.
Shawano	300	
Taylor	200	
Vilas	1,500	
Washburn	350	
Wood	100	
Total	17,355	

The estimates here given are not calculated, but are simply information based upon estimates of different men well informed with regard to certain parts. They were critically examined by comparing them with those of other men, and also by comparison with results of calculations based on probable cut per forty or per town and the area supposed to be still covered with timber. Moreover, the probability of the correctness of the various estimates was subjected to scrutiny in various ways and tested by personal inspection of the field.

Upon such basis, utilizing partial and imperfect estimates, which were checked and counterchecked, the attempt was made to approach as near the truth as was possible. After the writer had made up his own estimates, he once more submitted the same to his informants, and their divergence of opinion, wherever essential, will be found noted in the part of this report which refers to conditions in each county.

The white pine appears to seed heavily and quite regularly. The trees in all parts of North Wisconsin were laden with cones last fall (1897). The seedlings thrive best on sandy soils, but grow on loamy soils almost as well. The young growth forms dense thickets, grows very fast in height (one to two feet per year) as well as in thickness (often one-fourth to three-eighths inch and more), and the saplings timber cleans itself quite well of its dead branches, but not as well as red (norway) pine. In Wisconsin the normal tree is over fifty feet high at the age of fifty, attains a height of over 120 feet and a diameter of over thirty inches, and continues its growth in thickness with a most remarkable uniformity to a great age (200 years and more). White pine, as a mature timber, has more faults than red (norway) pine, bears more large dead stubs, disfiguring its trunk, is prone to fork, often three and even four large forks springing from the same stem, and is much more unsound, old timber being frequently defective by decay.

Both white and red (norway) pine find a ready market in every locality, being sold as stumpage, logs and lumber. Fully 90 per cent of the present cut of over 2,000,000,000 feet (the cut was about 3,500,000,000 in 1893) is logged on a large scale with heavy equipment and is sawn in large mills. All cutting is extremely close; in most camps everything is taken "that will make a 2 by 4 inch," so that even sapling thickets are no longer spared, and the milling, driving, grading, etc., is done with remarkable care and economy. Ordinary mature timber yields about four to four and a half logs per tree, where five to seven logs cut 1,000 feet B. M. The general average size (diameter) of the pine logs is at present only about fourteen inches, and it takes ten logs to make 1,000 feet B. M. Where much red (norway) pine is cut, the size is even smaller; large quantities are logged to-day where fifteen to twenty logs are required to make 1,000 feet B. M.

Future.—The future of pine supplies necessarily depends on the amount of growing timber and on its chance of growth. Throughout the hardwood districts there is no young growth of pine of any consequence. Some groves of young pine occur on many old and burned-over slashings on the sandy loam and loamy sand districts, where settlement has put a stop to the fires. In all pineries proper, many thickets of young pine occur which have sprung up during the last twenty-five years, but most of these are on land either never logged before or else but lightly culled. If protected, these groves could soon furnish a considerable quantity of merchantable timber, but under present conditions they will be largely crippled or entirely killed by fires, or else cut into cordwood for shook purposes. By far the best example of thrifty young white pine on old burned-over slashings may be seen at Shawano; other fine groves occur abundantly near Grand Rapids and at other places on the Wisconsin river, and also on the Chippewa river and its tributaries. These groves of pine have sprung up so gradually that in many cases those familiar with the place are astonished when their attention is directed to them. After the first fires the land is covered by fireweed and aspen; it is usually burned over a few times more, until the bulk of the debris is consumed; then the aspen is given a chance to form thickets of greater denseness, and the impression and the common notion is that this is the end, that the land is now to continue in aspen, and that aspen is the alternate in a "natural rotation" of pine and hardwoods. If, however, there are any survivors of pine near by—a common occurrence, especially on slashings of former years—young pine seedlings will soon make their appearance among the aspen. These pines, however, require about five years to attain a foot in height, and so for years, even though numerous (often 500 to 600 per acre), they escape the notice of most people. Before long the gray of the aspen thicket changes to a mixture of gray and green, and in a few more years the aspen grove is transformed into a pine thicket, with the feebly struggling aspen dying out. In the aggregate these groves of young pine, of which there are many in every county visited, are safely estimated at about 200,000 acres, sufficient to furnish within fifty years' time, if protected, a yield of more than a billion feet of marketable material. But while the ability of white pine to reproduce itself is amply demonstrated in every county in North Wisconsin, the fact still remains that the great bodies of cut-over pine lands have not and do not at present re-cover themselves with young pine; it is also true that more than 80 per cent of the bare-burned cut-over lands are practically devoid of any valuable forest growth whatever.

RED (NORWAY) PINE.

The red or norway pine occurs in every one of the twenty-seven counties here under consideration, but is abundant only in those which contain sandy districts of considerable extent. This pine does not occur on the loam and clay soils, except on the slopes along Lake Superior; it generally grows mixed with white pine on the loamy sands (in Oneida, Vilas, etc., counties), and occupies alone or mixed with jack pine the poorer sands (barrens of Bayfield, Marinette, etc., counties). The red pine grows quite rapidly when young (as fast or faster than white pine on the same poor soils), and up to the age of about 100 years, but it grows very slowly when old, generally forms a more slender stem than white pine, and does not attain the same dimensions, especially in diameter. It seeds heavily and reproduces well, shares in covering pine slashings, forms dense stands, cleans itself well of limbs, makes a straight, clean stem, is more sound than white pine, and yields very heavily. Originally it formed but a very small part of the entire stand of pine, but to-day about 13 per cent of the remaining supply is red pine. It is treated like white pine in all branches of exploitation, but it brings a smaller price and is more extensively cut into dimension stuff. Its frugality, rapid growth, fine dimensions, and heavy yield highly recommend this tree in considerations of reforestation.

JACK PINE.

In Wisconsin jack pine generally takes possession of all the poorer sands, where hardwoods and even white pine no longer thrive. Nevertheless, it is also found on sandy-loam areas (Shawano county and parts of Marinette county) where better trees have grown, and it appears that its presence in these localities is due to large fires which many years ago completely consumed the former forest and so reduced the fertility of the soil that none but this most frugal of conifers could reclothe the land. Jack pine forms characteristic dense thickets and even forests of many miles in extent, and it mixes frequently with red pine, less with white pine, and still less with hardwoods except the scarlet and other scrub oaks, and to a lesser extent the white birch, its normal companions.

In Wisconsin it is always a small tree, generally less than ten inches in diameter and below sixty feet in height. Frequently groves of several hundred acres consist apparently of trees of nearly one age and size. The tree reproduces well, grows quite rapidly, but only while young, and is generally short lived, reaching its best growth before the eightieth year. At present it is not used to any extent, neither stumpage nor logs having real commercial value, except in parts of the jack pine and oak openings, where it is used as fuel and for farm purposes. The total stand of this pine, if taken down to four inches, is about 3,500,000,000 feet, of which about 1,700,000,000 might be utilized for dimension stuff while the rest could be employed as pulp wood. Its great frugality, ease of propagation, rapid growth, and large yields will recommend the jack pine for the purpose of restocking all poorer sands.

HEMLOCK.

Hemlock is confined to the gravelly loam and clay lands of the more humid half of North Wisconsin and shares some of the peculiarities of the white pine growing within these limits. It is generally old timber, with little indication of active reproduction. Over wide areas only large, old trees occur, and in many localities even these are gradually dying out. Wherever the forest is partly cleared, where considerable pine is removed, the hardwoods cut out, clearings and roads opened, and also where fire has run, the hemlock, with its shallow system of roots, at once shows its great sensitiveness to any interference in soil moisture, and generally all, or at least most, of the trees succumb. In this way a large proportion of the hemlock on the lighter gravelly loams of Price, Sawyer, Chippewa and other counties, and also much of the timber on heavier lands in the vicinity of pine slashings, etc., has died and now furnishes great quantitities of dead and down material for future fires, which in turn will decrease the supply of this material, the value of which is greatly underestimated.

There is apparently no lack of seed, for the hemlock, like pine, this season (1897) was full of cones, and yet there is but very little reproduction of this timber. For miles no young growth of any size is seen, and the small trees, often mistaken for saplings, generally prove to be runts, suppressed individuals, often 150 and more years old. The only places where this tree still seems to hold its own are in some of the wet "half swamps" of the eastern part of this area. The young hemlock stands a great deal of shading and close crowding, but grows slowly both in height and thickness. The tree does not clean itself well of its branches, rarely forks, forms a more tapering trunk than the pines, and does not attain their dimensions. In the southern part of its area and on the heavier soils it grows to a height of 85 to 100 feet, with a diameter of twenty-four to thirty inches. In the northern counties and on the lighter gravels it is usually both shorter and smaller, frequently not over sixty feet high and under twenty inches in diameter. Hemlock is generally quite sound, but much of it is claimed to be shaky at the butt. In all favorable localities it cuts about three, and farther northward about two, logs per tree. Being generally mixed with hardwoods in very variable proportions, the yield of hemlock varies within wide limits. Mature stands of pure growth yield 500,000 feet and over per forty acres. To cut 200,000 feet requires good hemlock land, and generally, where large areas are considered and the hemlock forms 40 to 60 per cent of the total cut (pine being removed), yields of 100,000 to 150,000 feet per forty acres may be expected. The present supply of hemlock is generally much underestimated. This is partly due to the fact that large quantities have been killed by fire and exposure to wind and sun, and partly to market conditions, which have prevented a proper appreciation of this product. Generally hemlock was not estimated at all, or only the larger and best trees considered. According to the best information, there are standing at present nearly 12,000,000,000 feet of hemlock saw timber, and this estimate is, in the opinion of the writer, still 25 per cent below the real truth. In places hemlock is extensively peeled for its bark, considerable quantities are cut into lumber, chiefly dimension stuff, some of it is used as pulp, but in general it is not appreciated, so that neither stumpage nor logs can readily be sold, and millions of feet are wasting in the woods. The ability of the hemlock to endure crowding and shading is more than offset by its slow growth and its demands on soil, so that this tree deserves but a secondary place in the forest of the future.

ARBOR VITAE (CEDAR).

Arbor vitae or cedar in Wisconsin is practically limited to the moister hemlock area, but, unlike the hemlock, it continues through Douglas county into Minnesota, where it is a common tree throughout the humid forest region. Generally the cedar (arbor vitae) is limited to the swamps, but, as in parts of Minnesota and Michigan, it also invades the ordinary forests. In many swamps it is wanting, frequently it is the sole occupant. More commonly, however, it is mixed with tamarack, some spruce, and often a few scattered hardwoods. It forms dense thickets, reproduces well, grows rather slowly, is generally under eighteen inches breast high and less than sixty feet in height. The older trees are normally defective at the butt. The yield of cedar is extremely variable and difficult to estimate. As the tree is salable down to four and even three inches, the yield is generally great wherever the swamps have not been burned. A total of 1,300,000,000 feet B. M., the equivalent of 2,600,000 cords, may be regarded as a very conservative estimate. Cedar (arbor vitae) is cut for posts, poles (both telegraph and telephone), ties, and shingle timber. Wherever near highways cedar finds good market. The logging is generally done on small scale, and exact figures for total cut are therefore not accessible.

Tamarack, like cedar (arbor vitae), grows chiefly in the swamps, and invades to a small extent the upland woods only in some of the moist and cold localities, especially along Lake Superior. Unlike the arbor vitae, the tamarack inhabits the swamps clear to the western and southern limits of the district under consideration, and even stocks part of the swamps of the adjoining oak and jack pine openings or brush prairies. In these drier localities it remains small, but within the more humid parts it attains ordinarily twelve to sixteen inches diameter, a height of seventy to eighty feet, with a most remarkably small taper. It reproduces well, grows quite fast, forms very dense thickets, often entirely covering the swamp with poles of nearly one age and size, often, also, occupying merely its edges or the center. Frequently, nearly always in the drier western and southern parts, it is practically alone, i. e., forms groves of pure growth, but quite often it is mixed more or less with cedar, spruce and some hardwoods. Being salable only as tie and pile timber, tamarack under ten inches is not merchantable, and many swamps, though densely stocked, do not contain a cord of marketable material. The older stands are generally more open, many of the trees having fallen prey to age and weather. These broken stands, with their tall marsh grass and large masses of dead and down timber, form, during dry seasons, most favorable starting points for fire. For this reason many of the swamps—in some counties the majority—contain no green timber and continue to be for years a serious menace to the surrounding country. The standing merchantable tamarack is estimated at about 1,620,000,000 feet, or 3,200,000 cords, to which would have to be added at least an additional 3,000,000 cords, if pulp wood down to four inches is included.

In estimating the amounts of swamp timber, namely, cedar (arbor vitae), tamarack and spruce, the area of the swamps was estimated in lump for some counties, but more commonly it was ascertained by going over the minutes and maps for each township with some well-informed person. The area of burned-over and open swamps was then deducted, and finally a yield per acre for the wooded swamp area settled upon. This latter is generally about 3,000 feet, or six cords per acre, and, though apparently low, is not far from the truth when compared with estimates of large areas which have been examined in this connection. In estimating the proportion of cedar (arbor vitae), tamarack and spruce, locality and market conditions are considered. For some localities upland cedar and spruce are also estimated.

Though many of the tamarack and cedar swamps will in time be converted into hay marshes and even fields, both cedar and tamarack will undoubtedly continue to produce large quantities of useful material. At present but little tamarack is cut; some is sawn into dimensions stuff, a little of it is used for piling and poles, but, strange to say, the poor sappy poles of red (norway) pine are preferred in the market, and even ties have such a poor rating that most of the ties of these sections are either shipped in or made of hemlock.

SPRUCE.

Spruce occurs scattered throughout the moister loam land districts, especially of the northern and eastern parts of this territory, but it is more commonly restricted to the swamp and semi-swamp areas. On many of the poor moss bogs it forms the only tree growth. It is nowhere abundant, forms no solid bodies, is a mere runty shrub or half-tree on the moss bog, and even on the better soils attains a diameter of only about twelve inches and a height of fifty feet. Trees over twelve inches in diameter are the exception; trees eighteen inches in diameter and over are rare. It seems to reproduce fairly well, endures shade, but appears sensitive to changes in soil moisture, thriving only in very moist localities. Being scattered, spruce is logged only in a small way, though, on the whole, considerable quantities are being cut for pulp, and an increase of this cut may be expected.

The total stand of spruce in North Wisconsin may be placed at about 1,200,000 cords, including all wood down to four inches.

BALSAM FIR.

Balsam fir is thinly scattered in most forests of the more humid loam and clay lands. Like spruce, it is often wanting over considerable tracts, but few large districts are entirely without it. It reproduces well, stands crowding, and endures shade; it grows fairly well when young and favorably situated, remains small, but is not as short-lived as is often supposed. It is generally less than twelve inches in diameter and below sixty feet in height. It never forms large bodies, is little used as yet, and is rarely cut for saw logs; it is occasionally used for temporary buildings, and of late to some extent for pulp wood. Being usually left out of timber estimates, the amount of standing balsam is not easily ascertained. In all forests where balsam fir occurs in commercial quantities the yield per acre was placed at from fifty to one hundred feet B. M. per acre, or four to eight cords per forty acres, an estimate which agrees with some estimates made by the Chicago & Northwestern Railroad Company in Forest and adjoining counties. This figure will generally prove considerably below the truth, but it seemed desirable to have at least some estimate, however crude, of this material—doubly so, as it is already beginning to have a market value as pulp wood. Including everything from four inches up, there are probably about 800,000 cords. The balsam fir has no future, the ground it occupies is largely farm land, its growth is too slow, and its size is too small to commend it to future operations.

HARDWOOD SUPPLIES.

Aside from the general outlines of the hemlock and birch-bearing portion of the great forest, as differentiated from the oak forest, no sharp limits of distribution or composition of the hardwood forests are possible. Basswood, maple, elm and ash, the principal hardwoods aside from oak and birch, all enter into the composition of the hardwood forest in nearly all parts of this area, though in widely varying proportions. Thus, in one locality elm formed 30 per cent and more of the woods, while in another, but few miles distant, and with soil, drainage, etc., alike, the elm is nearly replaced by basswood or birch. Nor is it easy to draw lines with reference to size and quality development. Good timber on good soils passes by easy stages into inferior timber on poorer soils, and it is but fair to say that some good timber grows in every county. In general, it is an unquestionable and well-recognized fact that the hardwood timber grows smaller and scrubbier northward, and when the extremes, as, for instance, the hardwoods of Dunn or of Shawano, are compared with those of Iron and Douglas counties, this truth is quite apparent; but the transition is gradual, and any apparent lines of demarcation generally are explained by differences in soil rather than effects of climate. In the southern portion of the area under consideration the hardwoods attained considerable dimensions. Oak, basswood and elm ninety to one hundred feet high and over thirty inches thick are not unusual. In general, however, the mature timber is under thirty inches in diameter and under seventy-five feet in height, and on many large tracts shorter than sixty feet and under twenty inches diameter.

Generally the hardwoods are "short bodied" as compared to conifers; they furnish per tree about two and a half logs, and in the northern counties scant one and a half logs, of which it takes seven to ten to the thousand. Of the different kinds, basswood and elm are tallest and longest in body, the former quite commonly cutting three and even three and a half logs per tree, and the latter often furnishing ship timbers sixty to seventy feet in length. Birch is generally the shortest, and large trees often furnish but a single log. As might be expected, much of the older hardwood timber is in all stages of degeneration and decay, so that a considerable portion of it is defective and the cut consequently wasteful. The oak, being naturally the longest lived and having the most durable wood, is least affected; "it cuts sound;" basswood, birch, and ash are about alike and quite defective when old; while of all hardwoods the maple is the most affected. With this tree especially the fault seems not entirely a matter of age, but is apparently largely due to injury in consequence of frost—"frost cracks," with their peculiar rampartlike thickenings or ridges along their edge, being very common. These cracks naturally admit fungi and insects, and thus introduce decay. This defect in maple is most strongly complained of in the central and northern parts and least in the southeast and southwest, where a great deal of fine maple occurs.

Concerning the yields in hardwoods, opinions differ widely, but it is believed that the estimates are generally too low and are commonly deficient. There are several reasons for this, the chief of which are lack of experience both in estimating and milling of hardwoods, the men being used only to pine but not to hardwoods. To this must be added lack of time, the work usually being too hurried, and also the fact that most of the work is done for certain kinds (oak, basswood, elm, etc.,) and usually includes only choice material, the peculiarities of the hardwood market naturally reacting even on the matter of estimates. Generally the yields are estimated at from 80,000 to 150,000 feet per forty acres, or 2,000 to 4,000 per acre for fair to good lands, and from 25,000 to 50,000 feet per forty acres for the poorer lands and the northern lake districts. Some townships in Wood and Marathon counties are known to have cut over 100,000,000 feet B. M. per town, or nearly 5,000 feet B. M. per acre for the total area, swamp and all. Smaller districts, as some forests in Shawano and Langlade counties, cut from 10,000 to 15,000 feet B. M. per acre, but these must be regarded as exceptions.

The amount of standing hardwood and hemlock is determined by ascertaining the area of fairly stocked woodland, excluding swamp lands, then settling on the yield per acre or forty, and finally estimating their relative proportions. The determination of the area is the weakest point. The yields for all principal localities are based on wholesale estimates and results of actual operations. Thus the cut per township or for a number of sections, also the estimates of lumbering and railway companies, besides the detailed experience of several hundred men, are considered, and the results weighed by comparing the growth in different localities.

The proportions of hemlock and hardwood and the different kinds of hardwoods among themselves are ascertained in the same manner. There exist for all principal localities extensive detailed estimates (those of the Chicago Northwestern Railway and those made for several years by Mr. Ben. Hall of Marinette, are models of this kind), of which a number were examined, and in addition the views of different operators were compared. To most persons the figures of yield will probably seem high and, in truth, 6,000 feet per acre, or 240,000 feet per forty, does appear like a large amount, even for the best counties, but it must not be forgotten that here all kinds of timber, birch, maple, elm, etc., and also all sizes above twelve inches, and for oak and hemlock, even tie sizes, are considered merchantable, and also that waste and swamp areas are excluded, and thus only the acres of well stocked land enter into consideration. Those who consider the yield as taken too low (and there will be many of these) will bear in mind that merchantable saw timber in hardwoods and hemlock at present is quite a different thing from pine, and also that both hardwoods and hemlock are short-bodied, have been injured by fire, and involve in all old stands a heavy per cent of defective material.

PRESENT STAND OF HARDWOOD SAW-TIMBER.

Kind of Wood.	Million feet B. M.	Per cent of all hardwoods	Remarks.
Oak............	1,400	8.6	75 per cent Red Oak.
Basswood......	4,600	29.0	
Birch..........	4,150	26.0	Yellow or Red Birch.
Elm............	2,650	16.5	30 per cent Rock Elm.
Ash............	900	5.6	Mostly Black Ash.
Maple..........	2,300	14.3	Mostly Hard Maple.
Total........	16,000	....	

The hardwoods are cut in all parts of this territory. They are generally logged in a small way and most of the lumber is cut in small mills, with a yearly output of from 500,000 to 5,000,000 feet. According to a careful canvass conducted by The Northwestern Lumberman of Chicago, the results of which are published in its issue of January 22, 1898, the total output of hardwood lumber amounts to about 275,000,000 feet B. M. To this must be added large quantities of mining timber used in the Florence, Iron and Ashland mines, together with railway ties, piling, construction and ship timbers, and also considerable quantities of cooperage material and wagon stock, which in the aggregate probably brings up the total cut of hardwoods to about 500,000,000 feet.

The most valued and therefore also the most culled of the hardwoods is the oak, particularly white oak, the exploitation of which was begun in Wood and Clark counties more than twenty-five years ago. Of the other hardwoods, the basswood is most extensively cut and finds the most ready market, followed in this respect by elm, particularly the fine rock elm. Birch, though the prettiest wood of the region is much underrated, owing to fashions which prejudice the market. Nevertheless, large quantities are cut every year, and the same is true of maple, which is generally the least estimated of the hardwoods. Owing to its irregular distribution ash is of local importance only, though in some places it is claimed that ash logs are as easily procured as almost any other (Oconto county).

Among trees of secondary importance aspen (poplar), white birch, butternut and beech may be mentioned in order of their economic value. The aspen (poplar), both the common aspen and large-toothed aspen, is found in all parts of the area, but is conspicuous as a timber tree only in the northern forests, especially of Douglas, Bayfield and Ashland counties.

These aspens (poplars) take possession of all burned slashings; but aside from their use as nurse trees to pine and better woods the aspens (poplars) on the slashings of North Wisconsin so far have generally been of no value, and it appears doubtful if they ever shall be except in a few localities, especially in the better sandy loam districts.

The white birch is best developed near Lake Superior. It never grows large, generally remaining a mere sapling, commonly less than twelve inches in diameter and fifty feet in height. In this territory it is almost always a member of mixed woods, often joining the white pine, rarely forming thickets by itself (on some burned areas in Forest county). It is cut for chair stock, etc., but 90 per cent of all white birch is too small for present markets.

The butternut is sparingly scattered over the better loam lands (as far north as the Iron range), occurs isolated, rarely in small groups, and, though it grows to good size, its distribution here seems uncertain and accidental.

The beech is restricted to the sandy loam lands of the Green Bay region and invades but the edges of the real loam or clay lands of northern Oconto and Shawano counties. Wherever seen it appears to thrive, is abundant in all sizes, and evidently reproduces well.

Throughout the hardwood forests all stages from the seedling to the old and decaying timber trees, are represented. In some cases the stand of old mature timber is quite heavy and undergrowth and sapling timber restricted, generally the mature trees are in the minority, standing scattered ten to twenty per acre, and the greater part of the ground is occupied by young trees, small saplings, and bushy or withy beginners. The undergrowth is generally composed of young trees, and distinct kinds or species performing this function are few, often wanting. All kinds of hardwoods reproduce actively, as is well illustrated in numerous windfalls and abandoned clearings, where dense thickets of mixed hardwoods occupy every foot of ground. Abundance of seed and ability to stand shade enable the maple to predominate among the young growth, even where it holds but third rank and less as a timber tree. Conspicuous among the young growth, without ever attaining the size of log timber, are the blue beech, striped maple, and, somewhat less abundant, the hop hornbeam. As a common underbrush proper on both loam and sandy soils may be mentioned only the hazel, and, to a much smaller degree, the dogwood (cornel) and wild red (pin) cherry, the latter becoming really conspicuous only on the burned lands. The willows are quite abundant as scattering brushwood on open places, and occur on the dry sandy as well as clay lands. Alder replaces the large willows along many of the streams and in some swamps, it is never more than a bush, but as such forms characteristic alder brakes.

The scrubby hardwoods of the openings consist almost exclusively of oaks. Varieties of both white and red oaks (particularly burr white and red oak) grow here into bushy dwarfs fifteen to twenty-five feet high, four to twelve inches in diameter, branching out almost from their very base. These scrub oaks occasionally form thickets, but generally stand too far apart to prevent a ground cover of grass and weeds.

Since it occupies the better soils, the area of the hardwood forest will naturally continue to be diminished as the country settles, and the present supply will be reduced at a rate quite independent of hardwood lumbering. Nevertheless, the difficulty of clearing, comparative safety from fires, abundance of young well-growing stock, all combine to prolong the supplies, and the outlook for the hardwoods is far brighter than for the much more valuable pine.

SUMMARY OF SUPPLIES.

In the following tabulation the entire supply of wood materials standing is summarized and classified according to the uses that might be made of the same:

Summary of Wood Supplies standing in Wisconsin (1897) Classified.

Saw Timber.	Million feet, B. M.	As per cent of— Conifers and hardwood resp.	As per cent of— Total saw timber.
Conifers:			
White Pine	15,000	52	33.3
Norway Pine	2,300	8	5
Hemlock	11,700	40	26
Total	29,000	100	64.3
Hardwoods:			
Oak	1,400	8.6	3.1
Basswood	4,600	29	10.2
Birch	4,150	26	9.3
Elm	2,650	16.5	6
Ash	900	5.6	2
Maple	2,300	14.3	5.1
Total	16,000	100	35.7

Other Supplies.	Million feet B. M.
Poles, piling, ties, posts, etc.:	
Cedar	1,300
Tamarack (8 inches and over)	1,600
Jack Pine (over 8 inches)	1,700
Total	4,600
	Thousand Cords.
Cord Wood for pulp, fuel, charcoal, etc.:	
Hemlock	5,500
Jack Pine (under 8 inches)	3,600
Tamarack (under 8 inches)	3,000
Spruce	1,100
Balsam	800
Total for Conifers	14,000
All kinds of hardwoods	60,000
Sapling pine under 8 in., about 5,000,000 cords.	

It will be observed that an enormous amount of coniferous material exists which under present conditions possesses hardly a market value. Most of this material will grow into lumber and pulpwood, and it is to be hoped that its loss by fire may be averted.

PRESENT ACCRETION OR INCREMENT.

In North Wisconsin a grove of well-grown sapling pine timber, sixty years old, may be assumed to cut at least as much as fifteen cords of bolt size material, or about 6,000 feet B. M. In old woods as they stand, the trees above sapling size represent the great mass of the wood material, and therefore the growth of wood is largely on trees nearing or already of log size, so that the same amount of growth per acre here adds more saw timber than in the young grove above considered. For this reason a good thicket of pine sixty years old may not cut much more than 6,000 feet per acre, since much timber is under size, but the same stand at 120 years would easily cut 15,000 to 20,000, in spite of the fact that over half the trees that were found in the sixty-year grove have died before this age is reached. From this it would appear that 100 feet B. M. per acre and per year on sapling timber is probably a safe estimate for the growth in this region. About the same conclusion will be reached if a grove of old hardwoods is considered. Such a grove, which may cut 6,000 feet per acre, will be found to consist largely of young trees, among which there may be twenty to thirty good size older trees, and if examined, it will be found that the age of the oldest is not over 150 years, so that here about one-third or less of all the trees standing on the acre have produced the 6,000 feet B. M., which we are taking for lumber, in 150 years; the whole acre, therefore, may be assumed to be able to produce this amount in one-third this time, or, in other words, the same acre might be logged over for 6,000 feet about every fifty years. Such an assumption is fully supported also by comparing the cross sections of the pine and hardwood, which shows that though growing rather slowly (for hardwoods), nevertheless, oak, basswood, etc., in Wisconsin, equal and excel pine in rate of growth.

If, then, 100 feet B. M. per acre and year be assumed as an average estimate of growth for this region, the total annual growth over the whole may be set at about 900,000,000 feet B. M., which is distributed among the different kinds according to their ascertained acreage, as follows:

	Million feet.
White and Red (Norway) Pine	250
Jack Pine	30
Hemlock	75
Tamarack	30
Cedar	20
Spruce and Balsam	10
Hardwoods	500
Total	915

From this growth must be deducted the loss by decay or natural waste, which in all wild woods necessarily equals growth when large areas and long periods are considered. For white pine, red (norway) and jack pine, also tamarack and cedar (arbor vitae) in Wisconsin, nearly half the present growth takes place in young, immature timber, since this largely prevails. With pine in the hardwood forest, and still more with hemlock, decay proceeds faster than growth; for spruce and balsam an increase is doubtful, and with the hardwood forests in general the matter seems in a condition of equilibrium. This growth naturally is reduced by all operations, reducing either the forest area or the growing timber by clearing, by logging sapling or growing timber, and most of all by fires.

COMMUNAL INTERESTS IN FOREST CONDITIONS.

The importance of the forest to the State of Wisconsin as a factor of wealth is very great. The statement that "the wood industries have built every mile of railway and wagon road, every church and schoolhouse, and nearly every town, and that in addition they have enabled the clearing of half the improved land of North Wisconsin," is by no means an extravagant exaggeration. Between 1873 and 1898 more than 66,000,000,000 feet B. M. of pine alone were cut from this forest, and even then the lumber industry was in a flourishing condition on all the streams, and had built up La Crosse, Eau Claire, Chippewa Falls, Grand Rapids, Wausau, Fond du Lac, Oshkosh, Green Bay, and many other places.

The following table, the data for which have been taken from the annual statements of the lumber cut, as given by The Northwestern Lumberman, represents chiefly the output of pine. Since, in the original statements, Wisconsin was not clearly separated from Minnesota on the one hand and Michigan on the other, it was necessary to modify some of the original figures. The "Duluth district" was entirely left out, as being supplied from Minnesota, although West Superior is included in this item. This latter item could be segregated and added to the data given below only for the cut of 1897. Of the "St. Croix river" and "Green Bay shore" only one-half is credited to Wisconsin, and of the "Mississippi river" only one-third.

Cut of Lumber (chiefly pine) in Wisconsin during the twenty-five years ending 1897.

Expressed in million feet, B. M.

Year.	Lumber Cut.	Year.	Lumber Cut.	Year.	Lumber Cut.
1873	1,240	1882	2,580	1891	3,010
1874	1,200	1883	2,750	1892	4,010
1875	1,250	1884	2,950	1893	3,490
1876	1,340	1885	2,710	1894	3,100
1877	1,000	1886	2,680	1895	2,800
1878	980	1887	2,890	1896	2,080
1879	1,470	1888	3,210	1897	2,430
1880	1,920	1889	3,270		
1881	2,190	1890	3,660	Total	60,210

To this must be added about 10 per cent for shingles, lath, etc., so that the total saw mill output for the period was about 66,000,000,000 feet B. M. In this amount insignificant quantities of hardwoods and hemlock are included, while in earlier times, probably, a considerable amount, even of pine cut is not represented, the earlier figures being less accurately ascertained.

To this enormous amount of marketable material must be added large quantities of cedar timber, ties, poles, posts, piling, etc., also ties, piling, and construction timber of hardwoods and hemlock; ship timbers, the exploitation of which has brought special crews from Quebec and other points to these woods; large quantities of cooperage and wagon stock; many million feet of mining timbers, besides many more millions of feet of material for home use, as well as fuel and charcoal. The value of these materials, according to the state census of 1895, exceeded in that year the enormous sum of $53,000,000 for "lumber and articles of wood" alone, and this, aside from the large quantities never recorded, and the still larger amounts used in home consumption, such as fuel, fencing, construction material, etc., which may safely be placed at $10,000,000, amounting in the aggregate to more than one-third the entire value of the products of agriculture.

In 1890, according to the very incomplete Federal census of that year, the value of the rough lumber, cooperage, and wagon stock, ties, poles, posts, piling, and all products of the wood industries as they leave the first hand, amounted to over $40,000,000. If to this be added the value of pulp and tanning material, of mining timber, and that of the large home consumption, it brings up the total to fully $50,000,000 for these products at first hand and shows them, like the census figures of 1895, to exceed one-third of the value of all farm products of the State. And to these farm products alone are the simple forest products comparable, for in most other industries the same often highly finished and costly article appears with little or no modification as products of several branches of the same industry. Thus, for instance, the same piece of costly wrought metal is first credited to the rolling mill, then it appears with little change as a product of the boiler maker, and it reappears without change as part of a distilling outfit, or steam engine, thus occurring three times as a product of the iron industry, besides, perhaps, swelling the output credited to a shipbuilding establishment.

Besides possessing a value of their own, the products of the woods add to the wealth of the State by stimulating secondary manufacturing industries, supply planing and pulp mills, furniture, cooperage, and wooden ware establishments, and wagon and car shops, whose aggregate output in wooden articles amounts to over $20,000,000.

Value of Products of Wood Industries in the several Counties of Wisconsin.

From the State Census of 1895.

Name of county.	Lumber, shingles and lath manufactured.	Articles of wood manufactured.	Wagons, carriages and sleighs manufactured.
Total for State....	34,437,000	19,234,000	5,300,000
Ashland	1,389,000	....	3,000
Barron..........	575,000	50,000	32,000
Bayfield..........	1,714,000	8,000	1,000
Burnett	13,000	8,000	....
Chippewa	317,000	239,000	5,000
Clark..........	325,000	371,000	10,000
Douglas..........	744,000	1,179,000	242,000
Dunn..........	1,025,000	....	4,000
Florence..........	10,000	....	....
Forest..........	1,018,000	....	....
Iron..	25,000	21,000	....
Jackson..........	24,000	6,000	5,000
Langlade..........	453,000	112,000	5,000
Lincoln..........	2,353,000	11,000	....
Marathon..........	2,000,000	711,000	13,000
Marinette..........	3,749,000	136,000	3,000
Oconto..........	746,000	....	....
Oneida..........	1,481,000	302,000	....
Polk..........	115,000	2,000	1,000
Portage	518,000	105,000	21,000
Price..........	492,000	....	....
Pierce..........	135,000	32,000	22,000
Sawyer..........	304,000	....	....
Shawano..........	351,000	5,000	5,000
St. Croix..........	702,000	41,000	1,000
Taylor..........	656,000	1,000	6,000
Vilas..........	2,035,000	....	....
Washburn..........	358,000	....	....
Wood..........	941,000	272,000	7,000
Total for timbered counties..........	24,568,000	3,612,000	386,000
Brown..........	1,227,000	277,000	24,000
Eau Claire..........	2,170,000	230,000	12,000
Juneau..........	137,000	2,000	7,000
La Crosse	2,113,000	54,000	109,000
Monroe..........	237,000	2,000	4,000
Outagamie..........	83,000	260,000	14,000
Waupaca..........	998,000	56,000	9,000
Winnebago..........	1,082,000	3,920,000	349,000
Total for counties directly dependent on the Wisconsin forests....	8,047,000	4,801,000	528,000
Other parts of the State..........	1,822,000	10,821,000	4,386,000

From this enumeration it would appear that the value of lumber and articles of wood alone produced in the timbered counties, and those directly dependent for their supplies on the forests of Wisconsin, amounts in one year (1894) to not less than $41,000,000. To this must be added $3,200,000 for the wood products of Sheboygan and $4,700,000 for those of Milwaukee, which are at least partially dependent on Wisconsin supplies, being in part supplied from Michigan sources, making the total value of product for the State a round $50,000,000.

In 1890 there was invested in the saw milling industry alone, according to the census of that year, nearly $85,000,000, or a sum equal to one-third of the assessed value of all land in the State, or about one-sixth of the value of all real estate, and over one-eighth of the assessed value of the entire wealth of Wisconsin. Of this $85,000,000, over $13,000,000 is in the milling plants and machinery, $11,000,000 in logging equipments, logging railways, etc., including also logs on hand at the time, and over $31,000,000 in timber land, tributary and belonging to the saw mills. These industries paid during that year nearly $700,000 taxes, a sum equal to the total State taxes of Wisconsin; they paid over $3,000,000 for running expenses, aside from wages; about $15,000,000 for wages and logging contracts, and over $700,000 for the keep of animals alone.

The lumbering industry gave employment in a regular way to over 55,000 men (not women and children), besides purchasing several million dollars' worth of logs. Of those employed in these operations a large per cent are settlers who, through this industry alone, are enabled to support themselves until their slowly growing clearing furnish sufficient harvest. It is the taxes on timber land (not waste land, however), and its industries which furnish the "road money," and it is this same fund which builds, equips, and largely maintains in the thinly settled backwoods of Wisconsin, schools equal, if not better, than those of the country districts of any other State. It is this same industry which for years has made farming in the backwoods more profitable and the farmers more prosperous than those of some other States with milder climates and equally fertile soil. Nor is it the pine alone which has done, and is doing, so much for this country; for, owing to an unnecessary and injurious competition in the exploitation of the pineries, a concentration of milling and logging operations has resulted, which, in many cases, has deprived the particular counties in which the pine supplies were located of much of the benefit which otherwise would have accrued to them from this resource, and it is to be expected that to counties like Langlade, Shawano, Forest, Lincoln, Taylor, and others, the standing hemlock and hardwoods will prove to be of greater value than was their former stand of pine.

THE OUTLOOK FOR THE FUTURE.

It is impossible to foretell how long the pine is likely to last. As stumpage increases in price and the opportunity to buy it decreases, one mill after another drops out. Half the mills of twenty years ago are no longer in existence, not because they failed to pay, but because their pine supplies gave out, and this same condition will continue. The output, already on the decline, will grow smaller, and the exploitation of the 17,000,000,000 feet of standing timber is likely to be drawn out over a period far greater than would seem possible with the present rate of cutting. Nevertheless, the experience in parts of Michigan, and also of Wood, Portage and other counties in Wisconsin, indicates that cutting will go on without regard to the end, its rate depending merely on considerations of market conditions and facilities for handling timber, so that the end of the greater part of pine lumbering is likely to be quite sudden and its effect correspondingly severe.

The cut of hemlock, though still small, may at any time take on considerable dimensions. There are several good reasons which make this desirable. The wood is much better than is commonly assumed, and it is mere prejudice—and more prejudice of the carpenter than the consumer—which prefers poor pine to good hemlock. For some time the old hemlock has been dying out quite rapidly in most parts of this area: this process will certainly continue, and unless the old stands are cut much valuable material will be lost.

Hardwood lumbering will continue for a long time, though probably at a very variable pace. As things are now, the present cut of four hundred to five hundred million feet per year can be continued for more than fifty years, unless settlement and consequent clearing should progress at a very unusual pace.

The outlook for the forest itself has been indicated in the preceding. The hardwood forest is being reduced by logging and clearing, the pineries are disappearing, and fires assist in both, besides burning out the swamps.

As pointed out, both white and red (norway) pine are perfectly capable not only of continuing as forests, but of reclothing the old slashings, but are generally prevented from doing so by fire.

The hemlock is in a process of natural degeneration, and even the hardwoods, though thrifty while intact as forests, seem to fail on most cut-over lands wherever fire has run. Thus about 60 per cent of the cut-over and burned-over lands are to-day devoid of any valuable growing timber, producing only firewood at best, and the other 40 per cent of the 8,000,000 acres of cut-over lands are entirely bare. And this unproductive area is rapidly increasing in extent under present methods.

Assuming that 100 feet B. M. could be grown as the possible annual increment per acre on lands entirely without care, save the protection against fire, the State of Wisconsin loses by this condition of affairs annually 800,000,000 feet B. M. of a marketable and much needed material. This loss is primarily a communal loss, a damage to county and State, for the individual owner does not suffer; the land is bought for the timber, and when this is cut the land is only held if it appears that a low tax assessment and opportunities to sell, etc., will promise more profit in holding than in abandoning it.

* * * * *

FOREST FIRES.

What the fire has done to the pine supply is apparent from the conservative figures of the original stand of pine. Besides this injury to pine, the fire has killed more than 5,000,000,000 feet of hemlock, at least 1,000,000,000 feet of cedar, and several billions of hardwoods, besides large quantities of tamarack, and, in addition, stands of young and sapling pine (under eight-inch diameter) covering many thousand acres, which to-day would furnish 5,000,000,000 or more feet of merchantable material. The same work of destruction continues; this very fall (1897) many hundreds of acres of young sapling pine were ruined by fire, and it will be many years before the opening of settlements and roads suffices to permanently suppress the fire fiend. From this it is clear, and the fact is fully conceded by all persons conversant with the conditions of these woods, that the first and most important step in the prevention of further destruction of the forests consists in the organization of an efficient fire police.

That a diversity of opinion should exist on this subject is but natural. To most people the entire subject is foreign, the problem too large. To many even well-informed and experienced men the forest fire is an enormous affair, a calamity which man is entirely unable successfully to combat. Nevertheless, the best-informed men, nearly all woodsmen ("cruisers" and loggers), whose opinion was sought in this connection, expressed themselves in favor of such a police and felt certain of good results. * * *

CHANGES ON CUT-OVER LANDS.

The condition and character of the aftergrowth on cut-over lands is quite variable, since, according to original condition and subsequent treatment, changes occur in the plant cover as well as in soil conditions. These conditions and changes have a bearing on the question of the future of these lands, whether they be left alone or be restocked with timber, so that it appears desirable to give a description at least of the more frequent types.

SANDY PINERY LANDS.

(1) When a clean, dense stand of mature pine timber is cut, and the fire gets into the slashing late

the following summer, after all the limbs and tops on the ground have had a chance to dry, the ground is fairly cleared by the fire, the bulk of the tops are burned, and a "stump prairie" remains. On the poor sandy soil, with the small humus cover destroyed, there comes first a crop of fire weeds, then aspen and sweet fern with other weeds, and then some grass and isolated bushy scrub oaks (often some willows) cover the ground sparsely. As soon as enough dry leaves and other material have accumulated the fire recurs and the small aspen and other growth is killed. By this time the ground is much reduced in fertility, aspen is slower to return, and the ground is largely taken by weeds and grass. A few repetitions of fire change the ground sufficiently to prevent the further growth of aspen for years, and there are many areas where this tree has given up all effort to restock the land.

This type seems to be the common form of slashing in heavy pine. Such areas furnish little forage for live stock; they are naturally poor, and this condition is much aggravated by repeated fires and exposure to wind and sun. To an attempt at restocking with timber they offer no obstacle save their poverty, which would soon be changed by growing timber.

If the fire is not repeated in such a slashing the aspen forms dense thickets, in which pine, birch and maple gradually find suitable conditions for their growth. For years the detrimental effect of the fire is visible in the stunted growth of the young trees. Aspen, which in the original forest grow often several feet a year in height, remain short runts, and it is not until ten and more years of rest from fire have permitted the accumulated litter to improve the soil that a more vigorous growth becomes apparent. Tracts of this kind occur in every county, but they form only a small per cent of the total area of cut-over lands. They are troublesome to clear after the thickets once have attained considerable height, and they do not furnish good pasture. To continue them as woodlands they require merely protection from fire, and for their improvement pine should be supplied, either as seed or plants, wherever it is wanting.

(2) Where the old stand of pine was broken and a considerable mixture of small pine and hardwoods existed there remains, after the first fire, a large amount of scorched and charred standing dead and dying material. In this, as in the following form of cut-over pinery lands, young growth readily succeeds, provided fires are not repeated. But this happy accident does not generally occur; the great quantity of dead material, most of which does not fall during any one year, keeps the ground furnished for several years with debris, and thus invites the return of fires, which continue to come until the ground is largely cleared. The area now resembles the case first considered: it is a stump prairie, usually not as clean, and here, too, the return of tree growth is very slow and often for years discouraged altogether.

(3) Where groves of sapling pine have been culled of their larger timber and are then fired, the greater part of the remaining growth is injured and much of it is killed. These injured groves are generally of little promise in themselves; their growth is hampered and their scorched butts doomed to decay; but they are valuable in so far as they readily restock the ground with young timber, providing it is not killed by fire. If fires occur, which is generally the case, the entire grove is gradually burned and killed, or if the fire gets in during a very dry season and attains considerable proportions the entire grove is changed at once into a tangle of scorched and charred poles, which require for their improvement either a great amount of labor and expense or else the starting of more fires to first get rid of the debris. Where fire runs through slashing (in large timber) too early in the season, and when the ground is still wet, and also where no fire occurs for several years after logging, so that the leaves have become litter and the small twigs are decayed, then the slashings, even of wasteful operations where large amounts of heavy tops and much dead and down material exists, are often not burned clean, the ground being strewn with scorched logs and tops, and many cases exist where settlers are logging to-day on old slashings of this kind, although not a living pine occurs.

It is but natural that these several forms grade into each other, and that nearly every slashing, especially during the first few years, markedly changes its complexion. In general the bare land form predominates in all pinery areas and occupies to-day probably about 40 per cent of the cut-over lands.

LOAM AND CLAY LANDS.

(4) A greater admixture of hardwoods, due to the presence of more clay in the soil, materially affects the condition and appearance of the cut-over land. Where pine was predominant and the hardwoods scant, as on the red clays about Lake Superior and on the poorer gravelly loam, the removal of the heavy stand of pine commonly involves almost a total destruction of the hardwoods, just as in the case of the regular pinery: the ground is soon cleared by a repetition of fires, the aspen ceases to return, but, unlike the sands, these loam lands soon produce a fair amount of grass and the land is converted into pasture.

(5) Where the hardwood is heavier, and especially where hemlock enters into the composition of the forest, the dead timber remains standing for years, a forest of dead trees, and often 400 to 800 cords of timber per acre may be seen after repeated, and often severe, fires have swept over the ground. Such areas are not rare; the fires of 1894 created quite a number. They are undesirable pasture lands, difficult to clear, and still largely too good to be restocked with timber, which in such places would require considerable labor and expense.

(6) Where the heavy hardwoods and hemlock predominate and the pine is a mere scattered admixture, the ground and litter is usually damp. Fires run only during exceptionally dry seasons (as in 1894). The removal of the pine is not followed by fire. It leaves the lands densely timbered, so that they hardly seem to deserve the appellation of cut-over lands. Nevertheless, even in these forests fires have run, never far, to be sure, but still strips five

miles and more in length are seen, where the fire has left a dense, heavy cover of dead and dying, scorched and charred trees of all kinds. Fortunately, these tracts are not very numerous. Their only hope lies in clearing them for farm purposes, for which nearly all of this heavier land is eminently well suited.

RESTOCKING.

What may be done to restock the land will vary from place to place, according as the land is well under way to reclothe itself, or is a bare waste, or is a tangle of debris, or covered with worthless thickets of fire-damaged woods. The restocking may be done at once or by piecemeal. It may be done thoroughly or roughly. It may assist nature to a small or large degree. Where scattered saplings and defective trees have been left in logging and have survived the fires, they continue to seed the ground. About each of them a little crop of seedlings springs up after good seed years (every three to five years), and if protected, these grow; and in about twenty years, by the time the mother trees are gone, they bear seed themselves, and then the process of restocking really begins. Thus, much valuable time is lost, and the ground remains exposed too long to wind and sun, and is thereby reduced in its fertility.

In many districts seed trees are wanting; repeated fires have killed both mother tree and seedlings, and nature must be assisted if anything is to be accomplished in reasonable time. In most sandy pinery lands where the fires have made a clean sweep the work does not require much preparation, and a very cheap beginning can be made by planting a much smaller number (say 500 per acre) than is really needed to make a satisfactory stand. These plants, together with the poplar, birch and other brush, soon make a cover for the ground, the young pine rapidly grows into marketable wood, and at the age of twenty and less it begins to shed an abundance of seed, so that before the first trees are ready to cut every foot of ground would be covered by a promising pine thicket.

Where the ground is covered with large quantities of dead and down timber, and especially where dense thickets of fire-killed brushwood offer serious obstacles to any sylvicultural processes, fire may have to be resorted to as a cheap and rapid means of clearing. The outlay for all work of this kind need be made but once; the forest once established, will be permanent, and by judicious logging and adequate protection against fire it will renew itself indefinitely.

Of equal, and, perhaps, greater, importance than the choice of proper methods will be the selection of the proper trees to plant. Among the native growth the pines are preferable to the hardwoods, and the white pine is foremost in this as in every other respect. Nevertheless, red (norway) pine, and even jack pine, will prove of great value and may often have to be resorted to. The value of these pines lies not only in their frugality, their adaptability to poor soils—soils that are really unfit for farming—but also in their gregarious habit, since they thrive in great numbers together and thus facilitate exploitation, and also in the capacity of developing a large number on a small area, which, together with the great length of their trunk, produces large yields; and, finally, in the character of their wood, which will at all times insure for their product an almost unlimited market.

The white pine will thrive on 90 per cent of all sandy areas of North Wisconsin and on all loam and clay lands; it grows fast and in very dense stands; is useful for pulp at thirty years of age, for box boards at fifty, and makes lumber at eighty to one hundred years. According to the experience in Massachusetts and New Hampshire, groves sixty years old cut over 30,000 feet shook boards per acre, and furnish trees twelve to twenty inches in diameter and over seventy feet in height. These New England groves, which have largely sprung up on old abandoned farm lands and are generally without any particular management, are reported to furnish in the aggregate from 30,000,000 to 50,000,000 feet per year.

Red (norway) pine is even more frugal than white pine, and there is no sandy area in northern Wisconsin which this tree can not be made to cover with an abundant growth of fine timber. The jack pine is the most frugal tree of all, and, though of small stature and short-lived in Wisconsin, will prove a valuable aid in connection with the other pines and especially as nurse tree on the poorest sands.

To encourage the hardwoods will not be necessary, except in some localities. Wherever abundant now they are growing well, and are likely to be continued in the wood lot of the farmer on all clay and loam soils. It may safely be predicted that the hardwoods in the better hardwood counties will be abundant for many years. The hardwoods do not thrive on most of the land here considered "forest land." They refuse to grow on the sands, yield light, cut wastefully, and furnish a product which, however valuable intrinsically, will for a long time have to contend with a limited and exacting market.

To those who are astonished at the mere idea of planting forests and who scorn European methods as impracticable in this country it may be of interest to know that in Saxony, where the most intensive kind of forestry is carried on, an area of 400,000 acres, or about two-thirds as large as Lincoln county, brings the State a net income of nearly $2,000,000, furnishes regularly every year to consumers about 20,000,000 cubic feet of wood, so that pulp mills and sawmills have long become permanent institutions, and that in this State, where forests are largely planted with nursery stock, the sylvicultural work of planting, sowing, etc., all told, amounts, on an average for the entire woods, to ten cents per acre per year, and involves only six per cent of the total expenses, which in this case include all logging operations.

Whether all these efforts will pay as long as the land is held by private owners, whose fortunes are only of to-day and whose heirs will prefer to parcel the land out to inexperienced settlers, cannot here be considered. The experience abroad and also in this country indicates that the State must at least undertake the care of the most difficult and unprofitable parts, and that the greatest good to the greatest number lies in state ownership of forests. New York waited a long time to see private owners manage rationally in its woods, but has been compelled at last to buy the land and to establish a forest organization to keep its mountains from being converted into desert brush lands and its streams from being alternately dry branches and mud torrents. A similar movement in Wisconsin would at present be greatly facilitated by the present conditions of ownership. The land is still held in large bodies and by men actively engaged in a business quite distinct from speculation and dealing in real estate, and therefore a transfer could be effected in most cases very easily and at prices (twenty-five to fifty cents per acre) which would seem to guarantee financial success to forestry even in the backwoods of Wisconsin.

FOREST CONDITIONS IN THE SEVERAL COUNTIES.

Ashland County.—The northern one-fifth of the county was formerly a pinery on red clay soil with a thin sprinkling of inferior hardwoods, some hemlock, and occasionally cedar and even tamarack on the more level areas. To the south a mixed forest of hardwoods, hemlock and pine on gray loam and clay lands stocked both slopes of the range as well as nearly all parts south of the range. In places, especially along streams, pine was predominant, which was also the case on the small sandy tract along the Flambeau in the southeast corner of the county. The pine timber along the lake, except that of the Indian reservation, is cut and the pine has been culled from most of the mixed forest and is estimated, all told, at only 300,000,000 feet. Small patches about the mines have been cut clean of all timber. Generally the hardwoods and hemlock are unculled, and, with a yield of 4,000 feet per acre, amount to about 700,000,000 feet of hemlock and 900,000,000 feet of hardwoods, of which birch and basswood form fully 60 per cent, while oak is hardly of economic importance. Fires have injured Ashland only in the pinery along the lake, and thus even the swamps are fairly well stocked with cedar, tamarack and some spruce.

Barron County.—The northern one-third, a gray loam and gravel land, was originally stocked with a mixed forest of pine and hardwoods, the pine prevailing, except on the ridges of the northwestern part of the county. In the central part, on a variable sandy loam, there was a pinery with a thin mixture of hardwoods and occasional better hardwood bodies (see "Soo" Line from Cameron west). The southeastern one-fifth of the county, widest along the east line, was sandy, jack pine and oak openings. The pine is cut, except in the northern and northeastern towns; the hardwoods are culled and in nearly all parts of the county damaged by fire. The standing pine is in isolated bodies and is estimated at 150,000,000 feet. The scattering bodies of better hardwoods are believed to represent a stand of about 250,000,000 feet, in which oak, basswood, birch and maple enter in nearly equal proportions. The few swamps of this county are reported bare of merchantable timber in larger quantities. Large tracts of cut-over and burned land occur in nearly all parts.

Bayfield County.—A belt of red clay, six to ten miles wide, skirting the lake, is pinery with a light mixture of scrubby hardwoods and some hemlock. The southeastern one-third, occupied by the basins of the Nemakagon and White rivers, is a mixed forest of pine, hardwoods, and hemlock on a gravelly gray loam; and the central and western part, a broad belt extending from town 50, range 5 west, southwest into Douglas county is a sandy jack pine and norway pinery, with considerable white pine in places. The timber along the lake, except that of the Red Cliff Reserve, is generally cut; it is also heavily cut into on White and Nemakagon rivers and along the Northern Pacific Railway. The present stand of pine is about 3,000,000,000 feet, of which a large part falls to the regular pinery lands. In addition there are about 400,000,000 feet of hemlock and an equal amount of hardwoods, most of which is birch, basswood and maple; the oak, though abundant as scrub wood, being scarcely represented as real timber tree.

On some of the "barrens" or jack pine and bare sandy lands no timber existed when logging began, but there is evidence that in former times they, too, were covered by a forest of larger timber.

The numerous swamps of the southeastern part of this county are fairly well stocked with both cedar and tamarack, and also some spruce. The swamps of the estuaries along the lake are generally covered by heavy growth of cedar. Bare wastes of great extent occur in all localities where pine logging has been going on.

Burnett County.—Nearly the entire county is a sandy jack pine and norway pinery, dotted with regular "barrens" and island patches of better loam lands. In the northwest corner, north of the St. Croix river, is a tract of gray loam lands, which was stocked originally with pine lightly mixed with hardwoods. Along the south line of the county extends a body of loam lands, covered in part by heavy and almost pure stands of hardwoods, only the sandy depressions bearing pine. The pine in this county is largely cut; the little hardwood has been damaged by fire, and jack pine only occurs in extensive woods. The scattering pine is estimated at about 200,000,000 feet, and about 200,000,000 feet of hardwoods are believed to occur in this county, besides some 300,000,000 feet of jack pine, which sooner or later must become valuable. The swamps are largely bare or else covered by a light growth of tamarack. A large part of this county is positively bare land, being devoid of any forest cover.

Chippewa County.—The southwestern and south central one-fifth of the county is oak openings and prairie (extensively settled) in its western, and jack pine woods in its eastern part; the remaining four-fifths of the county are forest. Of this, the part east of the Chippewa river and small tracts along the river on the west side are covered by a mixed forest, in which hemlock and birch are abundant, except on the southeastern part of the county, where the birch and hemlock forest merges into an oak forest. In the timbered part of the county west of the river the hemlock is missing and birch is much less common.

Though the pine has been cut in all parts of this large county, there is still a considerable amount scattered and in isolated bodies, which is estimated at about 500,000,000 feet. The hardwoods have been cut into in the southeastern and also in the northwestern part, and large tracts have suffered heavily from the fires of the large pine slashings following all the streams; the hemlock has been cut but little, but, like the hardwoods, has been damaged by fire. The standing hardwood and hemlock yield about 5,000 feet per acre, the yield in the pure hardwoods of the western part being lighter. About 800,000,000 feet of hemlock and about 1,100,000,000 feet of hardwoods are believed to exist in this county. In the hardwoods in the western and also the southeastern woods the oak is predominant, but on the whole forms little over 10 per cent, while basswood and birch constitute over half the total supply.

The swamps, extensive only in the northeastern part of the county, have been much run over by fires and are, therefore, very poorly stocked. Large areas of burned-over wastes occur along all the streams.

Clark County.—The greater part is a level loam land area, which was formerly covered by a forest of hardwoods mixed with a remarkably heavy stand of large white pine. Hemlock occurs only in the northeastern portion. The western and southern part is invaded by the sandy area covering Jackson and Eau Claire counties, and was formerly covered by a pine forest without hardwoods. The pine has nearly all been cut and was sawed at La Crosse and Eau Claire, and only about 200,000,000 feet are believed to be still standing. The hardwoods are culled especially for oak, and have suffered from fires. The remaining supply is estimated at only about 650,000,000 feet, of which oak is still nearly 30 per cent, the remainder being chiefly basswood and elm. Clark has few swamps, and these are poorly stocked.

The greater part of the country to-day is still covered by culled hardwoods; much of it is settled and only the sandy pinery presents tracts of bare waste many miles in extent.

Douglas County.—The northern one-third of this county is red clay land with pinery, in which is found an unusual mixture, for this State, of pine (chiefly white pine), white and yellow birch and other hardwoods, generally with more or less cedar and tamarack. South of this and extending south to the St. Croix and east to the Brule is a similar forest of pines with a somewhat heavier mixture of hardwoods, heaviest on the range, growing on gray loam land. The southeastern part, south and east of the St. Croix, is a sandy jack pine and norway pinery with large jack pine woods following the river into Burnett. The pine has been cut along the lake and also along the St. Croix and the railways, but there is still a great deal of standing timber in large and small bodies, estimated to cut about 3,500,000,000 feet. The hardwoods have been little invaded, but, forming here only a secondary mixture, are largely killed by fire when the pine slashings are burned, as is well illustrated by the country about and south of Superior. On Maple Ridge considerable hardwood is cut, and, strange enough, oak forms often as much as 25 per cent of the yield. Scattering as they are, the hardwoods are still believed to cut about 700,000,000 feet.

Dunn County.—Of the sandy east half the northern portion is jack pine woods and openings, the rest oak openings with real prairies. On the western half the clay and loam land ridges were once covered with almost pure hardwoods, and the more sandy valleys were stocked with a mixed growth of large pine and hardwoods, the former often prevailing. The woods on Hay river partook of the regular pinery form and merged into the jack pine woods of the northeastern towns. The pine is practically all cut, though the scattering patches still amount to several million feet. The hardwoods are much interrupted by clearings, many tracts have been culled and even cut clean. The isolated tracts of hardwood, with a yield of about 4,000 feet per acre, are estimated to cut 400,000,000 feet, of which oak is 25 per cent and basswood and maple form 50 per cent. The few swamps are generally bare of merchantable material. Large areas of bare waste land occur in the jack pine district and may be seen along the railway between Wheeler and Summit. Many groves of fine young white pine are fast growing into timber about Menomonie.

Florence County.—The greater part of this county was a mixed forest of pine, hardwoods and hemlock on a gray loam, with smaller tracts of regular pine land, especially along the streams, and a larger tract in the northeastern part, where even jack pine woods covered considerable ground. At present the pine is largely cut, and only about 150,000,000 feet are believed to now exist in this county. The hardwoods and hemlock have not been cut, except small patches about the towns, but they have been injured in places by fire. With 4,000 feet per acre of both hardwoods and hemlock, the cut of the latter is about 300,000,000 feet and that of the former about 400,000,000 feet, of which basswood, birch and maple form 75 per cent, while oak scarcely occurs. The swamps are generally covered and swell the entire cut of timber by over 100,000,000 feet. Burned areas occur in every town of the county and, as in others, form a far greater proportion (here 20 per cent) of the entire land surface than is usually supposed.

Forest County.—The northwest quarter of the county is largely a flat, swampy pinery; the rest is a hardwood, pine and hemlock mixed forest, generally on gravelly, gray loam. This mixed forest is interrupted and dotted with numerous bodies of pine lands, where the hemlock and hardwood almost disappear. The pine is mostly cut; about 500,000,000 feet B. M. are still claimed as standing. The hardwoods and hemlock are unculled and but little hurt by fires, except about the pine slashings. With 4,000 feet per acre of well-stocked woods, there are about 500,000,000 feet B. M. of hemlock and 1,000,000,000 feet of hardwoods, of which birch and basswood form about 60 per cent. As in the neighboring counties, a little red oak occurs in Forest county, but it is thinly scattered over the entire county and would hardly form more than 2 per cent of the cut. Many of the swamps are open bogs, the rest are generally stocked, and the swamp timbers, cedar, tamarack and spruce amount to fully 300,000,000 feet. Nearly all pine slashings are burned bare, so that a considerable amount of waste land occurs.

Iron County.—The southern one-fourth is a flat loamy-sand pinery of the same nature and continuous with that of Vilas and the northeast corner of Price county. The rest is a loam and clay land area with a mixed forest of hardwoods, pine and hemlock. On the range the hardwoods and hemlock predominated and pine was scattering; otherwise the pine formed a heavy mixture everywhere. The numerous swamps, especially abundant in the southern half of the county, are generally stocked with cedar, tamarack and some spruce, and these woods also invade more or less the low, flat portions of the ordinary woods, which are not really swamp. At present the pine is cut from parts of all townships, some of them being pretty well cleaned out, and the standing pine timber is estimated at only about 400,000,000 feet. The hardwoods and hemlock have been cut clean on a small area about the mines, but otherwise remain unculled and not badly hurt by fire. The standing hemlock is estimated at about 350,000,000 feet, and the hardwoods at about the same. Of these, birch, basswood and maple predominate.

Jackson County.—The western half is a sandy loam district almost entirely occupied by oak openings mixed on some tracts of heavier soil with bodies of better hardwood timber. The eastern half is a level, sandy pinery, with many swamps and no hardwood timber. This area furnished considerable pine, but is now largely cut and burned over, and only about 100,000,000 feet of pine is claimed to be standing. Numerous small and large bodies of young sapling pine and also of jack pine interrupt the extensive bare wastes. The swamps, which are generally bare of merchantable material, were formerly stocked chiefly with tamarack, but have been cleaned out by repeated fires.

Langlade County.—This county is covered by a continuous mixed forest of hardwoods and hemlock, in which pine occurred both scattered and in denser bodies in patches and belts, which, unlike those of Marathon, do not always follow drainage courses. The pine is practically cut, though the scattered material is still estimated at about 150,000,000 feet. The hardwoods are dense and heavy; their cutting has hardly begun, and fire has injured but little, nor is it likely to do so in the future. The standing hemlock amounts to about 1,000,000,000 feet, the hardwoods to 1,100,000,000 feet, of which birch, basswood and elm in nearly equal proportions form about 80 per cent, followed by maple and ash and a very small quantity of oak. The swamps are generally stocked with cedar, tamarack and some spruce. Larger bare areas occur along the Wolf and involve in all parts only the pine slashings.

Lincoln County.—A mixed forest of hardwoods, hemlock and pine covers the clay and loam lands, or about 80 per cent of this county. A small strip along the Wisconsin river, and a broad V-shaped tract spreading northward from below the junction of Tomahawk and Wisconsin, are sandy pinery. The pine is generally cut, only about 100,000,000 feet being in larger bodies, but there is a great deal of scattered pine which will bring up the total cut to at least 250,000,000 feet. The hardwoods are as yet unculled, have suffered little injury from fire, and with the hemlock will cut 6,000 feet per acre of all well-stocked land. This means a total cut of about 1,000,000,000 feet of hemlock and an equal amount of hardwoods, in which birch, basswood and elm represent about 70 per cent and oak only about 3 to 5 per cent. The swamps are largely stocked with both cedar and tamarack and a little spruce, but many of them have been burned into or were entirely cleaned out. Cut-over, burned, or bare lands exist wherever pine was dense, and in the aggregate amount to many thousand acres of the very kind of land least desirable for farming.

Marathon County.—Except the narrow border along the larger streams where pine prevailed, this county was a continuous mixed forest of pine, hardwoods and hemlock. The pine is nearly all cut; the present stand is estimated at about 200,000,000 feet, of which considerable is thinly scattered through parts of the mixed forest. The forest of hardwoods and hemlock has been heavily cut into for more than ten years. It is interrupted by large clearings, but has not been injured much by fire. The standing hemlock is estimated at about 1,500,000,000 feet, the hardwoods cutting about the same. Of the latter, birch and basswood in nearly equal amount form 60 per cent, elm 20 per cent, and oak only about 5 per cent.

Marathon has little swamp; most pine slashings have been burned over and, since so much good land exists all around, they are generally wastes. Many groves of young white and norway pine may be seen along the Wisconsin river. Though well settled and stocked with hardwoods which do not encourage fires, even this county in the dry season of 1894 suffered considerably from fires, which emphasizes the need of organization for their prevention.

Marinette County.—The greater part of this county is a pinery. Its territory is slightly invaded by the mixed forest of Florence and Forest counties along the county line. Isolated bodies of pine, lightly mixed with hardwood and hemlock, are scattered in parts of the pinery, particularly the towns along the Menominee river. Formerly a heavy stand of pine mixed with hardwoods occupied the part next to Green Bay. The latter area was burned-over during the Peshtigo fire of 1871, and is now bare or brush land with some settlement. Pine has been cut in every town in the county; the present stand is estimated at about 1,500,000,000 feet. The light mixture of hardwood and hemlock is largely fire-killed wherever the pine has been cut; the green timber remaining is estimated at nearly 500,000,000 feet, half of which is hemlock. Of the hardwoods, maple, birch and basswood predominate; oak, as timber, being very scarce. In the brush land along the bay the young growth of white cedar is disputing the ground with poplar and white birch. Extensive tracts of jack pine occur in the central and southwestern parts.

Large burned-over wastes exist in all parts of the county.

Oconto County.—Over half of this county next to the bay, which is a tract of variable sandy loam land, was covered by a heavy forest of pine, mixed with hemlock and hardwoods. The central part of the county is a sandy belt of pinery land, continuous with the sandy pinery of Marinette and Shawano counties. The loam and clay lands of the northern one-fourth was originally stocked with a heavy mixed forest of hardwoods and hemlock, with pine either scattering or in small bodies. At present the lower part of the county is cut over, much of it bare, and a large part settled. The pine is cut in nearly all parts of the county, and only 65,000,000 to 75,000,000 feet are claimed to be standing. The hardwood forest, in which the beech is conspicuous only on the lower sandy loam lands, still covers a quarter of the county, and is estimated to cut about 500,000,000 feet of hemlock and 400,000,000 feet of hardwoods, principally birch, basswood, elm and maple, considerable ash and little oak. The swamps of the lower part are burned over and extensively drained and utilized. Those of the north half are generally stocked, the cedar prevailing. Fine groves of young white pine are abundant in the southern towns.

Oneida County.—Almost the entire county is a loamy sand pinery in which good hardwoods and hemlock are practically wanting. A few isolated island-like bodies of mixed forest on heavier soil, a small tract in the southwestern, and larger ones in the southeastern part of the county, disturb the general uniformity. The pine has been cut along nearly all streams and railways, while the remaining timber occurs in interrupted stands, and is estimated at 1,200,000,000 feet, of which a considerable part is red (norway) pine. Of about 60,000,000 feet of hardwoods, 40,000,000 feet are birch and basswood, the rest being elm and maple, and very little oak. The hemlock is believed to cut about 20,000,000 feet and is too scattering to be considered at present. The numerous swamps, formerly stocked with tamarack, cedar and some spruce, have suffered much from fires. Large tracts of burned-over and bare land occur in all parts of the county, and of the numerous pine thickets, which occupy thousands of acres, a great many have been injured and killed by fire.

Polk County.—The northwestern corner from Wolf creek to the St. Croix river is a sandy jack pine woods, which continues into Burnett county. The remainder of the northern half is generally a hardwood forest, quite pure on many of the ridges, mixed and often entirely displaced by pine in the sandier depressions and valleys. The southeastern portion, about two tiers of towns along the east line from southern boundary northward, was originally pinery with a light mixture of hardwoods and better bodies of hardwoods in places, and the southwestern portion was jack oak openings. The pine is mostly cut; the standing timber is in isolated bodies, and is estimated at about 240,000,000 feet. The hardwoods have been extensively culled, except in the northern townships, where a stand of about 600,000,000 feet is believed to exist. Of this, oak and basswood form over half, while birch is comparatively scarce. Polk county has few swamps and no large quantities of merchantable timber is claimed, for the cedar is practically wanting. The jack pine woods are quite extensive and will yield a heavy cut. Bare areas are common here as in other counties. A few of these tracts are stocked with fair-sized poplar, which on this sandy loam seems to thrive better than elsewhere.

Portage County.—The southeast quarter is oak openings with groves of jack pine, especially in the western part. The southwest quarter is jack pine woods, and in the southern portion there is a marshy pinery, forming part of what is known as "Little Pinery." The northern half, broader on the western side, was once a mixed forest of pine and hardwoods with some hemlock, and was divided by strips of sandy pinery following up the Wisconsin and Plover rivers. Both pine and hardwoods have been cut in nearly all parts of the county, but there are still smaller bodies and scattering timber to warrant an estimate of about 20,000,000 feet of pine. The hardwoods and hemlock, of which some fair bodies exist in the northeastern part of the county, represent a probable cut of about 150,000,000 feet, 50,000,000 being hemlock. The extensive and dense jack pine woods will furnish 150,000,000 feet of material for special mills or pulp purposes, and will in time prove of considerable value. The swamps, of which a large part are open marshes, have suffered much from fires. Large tracts of burned-over pine slashings exist throughout the lumbered part of the county.

Price County.—The entire county is a level loam and gravelly loam area, formerly stocked with a most luxuriant mixed forest, in which pine prevailed in most of the northern two-thirds, and the hemlock and hardwoods in the rest. On a few small tracts in the central part and also along the Oneida county line in the northeastern part of the county a sandier soil gave rise to almost a pure pinery form of forest. The pine is generally cut; about 200,000,000 feet are still believed standing, but most of this is scattered, and not over half in large bodies. The hemlock and hardwoods in over half the county have suffered seriously from fires, and over large areas have been killed entirely. Nevertheless, there are nearly 400,000 acres of wooded area, which, it is believed, will cut about 1,000,000,000 feet of hemlock and 900,000,000 feet of hardwoods, in which latter birch and basswood predominate, with elm and maple following, both ash and oak being rather scarce. Price is one of the counties in which fire has done unusual damage, and large areas are entirely bare of growing material.

Sawyer County.—A mixed forest of pine and hardwoods originally covered the entire county, except a narrow strip along the Nemakagon, which is a sandy jack pine and norway pinery, and a sandy pinery area south of Round lake from the Chippewa west to the county line. Over considerable areas, as, for instance, along the Chippewa and Flambeau, the pine prevailed. Hemlock occurs cnly in the eastern two-thirds, being rarely found west of range 7 west. The pine has been cut along all the rivers, but there are still large quantities, which in the aggregate are estimated at 2,000,000,000 feet, and by some even at 2,500,000,000. The hemlock amounts to about 900,000,000 feet, the hardwoods 1,000,000,000, of which fully half is birch and basswood and about 10 per cent is oak, the latter occurring chiefly in the western part of the county. The 12 per cent of swamp lands are generally stocked, though extensive damage has been done to those in the vicinity of pine slashings. Even in this county, with little settlement, large tracts of burned-over lands are abundant.

Shawano County.—The southeastern one-third of this county, with its variable sandy loam and loamy soil, was formerly covered by a heavy forest of pine, mixed with hardwoods. The country about Lake Shawano and north to the county line is part of the sandy pinery district extending from this lake to the Menominee river. The northwestern two-thirds was a very heavy mixed forest of hemlock, hardwoods and pine, growing on a good, though in places very strong, loam and clay soil. The pine is cut, except in the Indian reservation, where about 300,000,000 feet are still claimed standing. The hardwoods and hemlock of the southeastern two-thirds are culled and damaged by fire, while those of the northwestern half are largely intact and have been injured only about pine slashings. The standing hemlock is estimated at 650,000,000 feet, the hardwoods at 700,000,000 feet, of which basswood, elm and maple form over 70 per cent and oak only about 5 per cent. Beech occurs only in the sandy loam area. About 30,000 acres around Shawano are covered by young white pine, which has sprung up on old slashings. The extensive swamps of the southeastern part have all been burned over, and many of them are being drained and cultivated. Those of the western half are largely stocked with cedar and tamarack, some of them yielding 15,000 feet and more per acre. Bare "stump prairies" occur in all parts of the county.

Taylor County.—A continuous mixed forest of pine, hardwoods and hemlock on a loam and clay soil once covered the entire county. The pine has been cut, except small bodies in the southwestern part, estimated at about 200,000,000 feet. The remaining forest still covers more than 60 per cent of all wild lands and cuts about 6,000 feet per acre. In this forest hemlock is predominant, and is estimated at about 1,500,000,000 (some good authorities place it at 2,000,000,000) feet, and the hardwoods at about 1,000,000,000 feet, of which 70 per cent is basswood and birch, and only about 5 per cent oak. The few swamps are generally stocked with tamarack, some cedar, and spruce. Owing to the dense damp cover of the mixed forest, Taylor county has suffered little from fires, and large bare lands are comparatively scarce.

Vilas County.—Except the northern one-fourth and some scattering island tracts where a mixed forest stocks the better soils, this county is an uninterrupted pinery, principally white pine, with little norway and hardly any jack pine, covering a rather level, loamy sand area dotted with several hundred lakes and numerous swamps. Pine lumbering began here along the Wisconsin river over twenty-five years ago, and the pine forest is cut into in almost every township. The present stand of pine is estimated at about 1,500,000,000 feet, besides many thousand acres of sapling and young pine thickets, which might soon grow into valuable timber. Both hardwoods and hemlock are rather scattered, except in some of the northern townships; the hemlock is estimated at about 120,000,000 feet; the hardwoods, of which birch, basswood and maple are most important, at about 150,000,000 feet. Of the numerous swamps, which form over 20 per cent of the area, many are open bogs, but the majority are stocked with tamarack and cedar and some spruce. Both in the swamps and the pine slashings fire has made much havoc, and large areas of bare stump wastes occur in abundance.

Washburn County.—An area involving the northwestern one-third of the county, with broad arms extending up the Totogatic and Nemakagon rivers into Bayfield and Sawyer, was formerly sandy pinery, with large bodies of jack pine and norway, mixed with white pine. The rest of the county, generally a gravelly gray loam, was covered by a heavy stand of white pine with a light mixture of hardwoods. The pine is generally cut. The present stand is estimated at 350,000,000 feet. The hardwoods have suffered much from fires, and over large areas not a foot of merchantable timber exists. The standing hardwoods are estimated at about 220,000,000 feet, of which basswood, maple, oak and birch, in nearly equal proportions, form about 80 per cent. No swamp woods of commercial importance are reported. Some of the largest areas of perfectly bare cut and burned-over lands in Wisconsin occur in this county.

Wood County.—The north half of this county was formerly covered by a heavy stand of white pine, with a mixture of hardwoods, to which was added, along the north line, a sprinkling of hemlock. South of this the sandy loam and loamy sand area was covered by regular pinery, which gave way on the west side of the river to an extensive open marsh and cranberry bog dotted by sandy, pine-covered islands. Extensive bodies of jack pine follow up the river into Portage county.

The pine has nearly all been cut, and the 100,000,000 feet of standing pine assumed for this county is mostly scattering and sapling material. The hardwoods have long been culled in all parts of the county, and not over 12 per cent of the area, with a probable stand of about 300,000,000 feet, is believed to remain. Of this hardwood over half is oak and basswood. The hemlock is confined to the northern townships and will cut about 50,000,000 feet. Aside from the large open swamp in the southwestern part, there are comparatively few swamps in this county. Large cut-over and burned-over areas are numerous, and much land is stocked with culled woods, furnishing ample fuel, etc. Some fine groves of young white pine may be seen along the Green Bay line near Grand Rapids.

The State of Wisconsin, with a population of about 2,000,000, a taxable property of about $600,000,000, has a home consumption of over 600,000,000 feet B. M. of lumber, besides enormous quantities of other wood material, which, if imported, would cost the State over $25,000,000. Of its northern half—a land surface of over 18,000,000 acres—only 7 per cent is cultivated, the rest forming one continuous body of forest and waste land. From this area there have been cut during the last sixty years more than 85,000,000,000 feet B. M. of pine lumber alone, and the average annual cut during the past ten years has exceeded 3,000,000,000 feet.

The lumber industries alone exploiting these resources represented in 1890 one-sixth of the total taxable property in the State, paid to over 55,000 men more than $15,000,000 in wages, and the value of their products was worth over $35,000,000. To this amount $25,000,000 per annum of wood manufactures must be added as relying on forest products produced in the State. Of an original stand of about 130,000,000,000 feet of pine about 17,000,000,000 feet are left, besides about 12,000,000,000 feet of hemlock and 16,000,000,000 feet of hardwoods. The annual growth, which at present amounts to about 900,000,000 feet, and of which only 250,000,000 is marketable pine and 500,000,000 feet hardwoods, is largely balanced by natural decay of the old overripe timber. In almost every town of this region logging has been carried on, and over 8,000,000 of the 17,000,000 acres of forest are "cut-over" lands, largely burned over and waste brush lands, and one-half of it as nearly desert as it can become in the climate of Wisconsin.

The wooded area proper is steadily being reduced by logging and to a smaller extent by clearing. At present nothing is done either to protect or restock the denuded cut-over lands, of which fully 80 per cent are now and will likely remain for a long time unproductive waste land. This policy causes a continuous and ever-growing loss to the commonwealth, which at present amounts to about 800,000,000 feet per year of useful and much-needed material, besides gradually but surely driving from the State the industries which have been most conspicuous in its development, depriving a cold country of a valuable factor in its climatic conditions, and affecting detrimentally the character of the main drainage channels of the State.

If we find that of about 130,000,000,000 feet of pine all but about 17,000,000,000 have been removed in forty years; that the cut proceeds still at the rate of 2,000,000,000 feet per annum, while the regrowth amounts at present to not over 200,000,000, and is really without much future as long as no attention is paid to its protection and recuperation, it is evident that as far as the main portion of the lumber industry—the pine lumbering—is concerned, a contraction is rapidly approaching, and we are justified in demanding the consideration of measures which will prevent the destructive and encourage the reconstructive agencies.

CHAPTER XLVIII.—STATISTICS FROM U. S. BUREAU OF FORESTRY.

EXTRACTS FROM DOCUMENT NO. 40, CONCERNING WHITE PINE TIMBER SUPPLIES, WITH ESTIMATES OF STANDING TIMBER.—CANADIAN IMPORTATION, ETC.

PURSUANT to a Senatorial resolution, April 14, 1897, the Hon. Secretary of the Bureau of Agriculture presented a report of the conditions of the forests of the nation, from which we append the following extracts, which, in the main, coincide with the independent investigations of the historian, and perhaps as correctly represent present conditions as it is possible to reach, while yet the more extended and personal researches of the historian show a much greater aggregate of pine timber cut in the northwest than is shown in the conclusions arrived at by the efficient Chief of the Division of Forestry, as will be seen by the detailed tables of production in each locality presented in former pages of this history.

"* * * * * There are no statistics of timber standing in the United States available which can claim to be accurate in any mathematical sense, nor would it be possible to ascertain such, if for no other reason than that the methods of utilization, which are largely dependent on changes of local and market conditions, change the amounts of material considered merchantable, harvested, or sawed from a given forest growth, the conception of what constitutes merchantable timber varying.

In the following statement, therefore, only a general survey of the reported facts has been attempted for the purpose of making clear the situation regarding the supply and consumption of coniferous wood in the United States. In this the more or less partial estimates of disinterested parties, combined with a professional knowledge of possibilities or probabilities, have been utilized for an approximation to the truth—a statement of probabilities rather than actualities.

Ever since the publication of the statistics of the Tenth Census regarding the white pine timber standing—nearly fifteen years—there has been a contention as to their correctness. Time has proven their extreme inaccuracy, for, while then only eight years' supply was supposed to be standing, when the annual cut was 10,000,000,000 feet, we have, with an increased cut, lumbered white pine for sixteen years and still there is a considerable quantity left.

Yet, at last, the end is visible, and even the most sanguine can not longer hide the truth that within the next decade we shall witness the practical exhaustion of the greatest staple of our lumber market.

As stated before, even now there are really no statistics upon which to base a correct prognostication as to the date of this exhaustion. Estimates only are available, and estimates of standing timber are proverbially unreliable, mostly underestimates, and always to be taken with caution. Furthermore, if an estimate of the duration of supplies of a special kind is to be made, it is necessary not only to know the supplies and the present cut but also to foresee the changes in the cut, the replacement in the market by other kinds, and the economies that may be practiced in the methods of logging, as, for instance, by the reduction in the size acceptable for saw logs, by cutting smaller trees, by the use of band saws, and by closer utilization generally, whereby the duration of supplies can be lengthened.

Thus, while the estimates of the Tenth Census were based on a minimum log of, say, ten or even twelve inches in diameter, in the present practice 8-inch and even 5-inch logs are used; while in 1880 hemlock went begging and whitewood had not yet been found to answer as a good substitute for white pine, and southern pine had not yet begun to compete, the interchangeableness of all these species in the market now renders the forecast still more complicated.

Nevertheless, it has become apparent that while white pine will be cut in the United States for many decades, as owners of the stumpage control their holdings, the enormous amounts which have hitherto been cut annually can not be had beyond the next five or six years, even with Canada to help in eking out our deficiencies.

CONSUMPTION.

From the statistics of the cut since 1873, compiled by The Northwestern Lumberman (see Appendix 1), it appears that since that year the stupendous amount of 154,000,000,000 feet B. M., and 83,000,000,000 shingles, or altogether in round numbers 165,000,000,000 feet of white pine has been cut in the states of Michigan, Wisconsin and Minnesota; and this total may be readily increased, by allowing for cuts in other parts of the country, to over 200,000,000,000 feet B. M., which this single species has yielded to build up our civilization in the last eighteen years, an amount to produce which continuously at least 20,000,000 acres of well-stocked and well-kept pine forest would be required.

From 1873, when the cut was about 4,000,000,000 feet, the draft on this resource was constantly increased until 1892, when it reached its maximum, nearly 9,000,000,000 feet B. M., and 4,500,000,000 shingles. Then a gradual decline began to 7,600,000,000 feet in 1893, 6,750,000,000 feet in 1894, rising once more to over 7,000,000,000 in 1895, and reaching the lowest output in 1896, with 5,500,000,000 feet; shingle production declining similarly to 1,500,000,000, which, translated into board measure, raises the requirements for that year to little less than 7,500,000,000 feet. This decline does not necessarily indicate any giving out of the supply, but might have been due, and probably was due, to business depression generally and to the competition of other kinds of lumber and shingles.

The total output of white pine in 1890, before the maximum was reached and when the cut of the northwest was recorded for lumber and shingles as a little over 9,000,000,000 feet, was placed by the competent agent of the Eleventh Census, in charge of the statistics of lumber manufacture, at 11,300,000,000 feet of white pine and norway pine, or about 25 per cent as coming from other regions, while hemlock, spruce and fir were estimated as furnishing 7,900,000,000 feet, so that our requirements of these classes of timber may for ordinary years be placed in round numbers at 20,000,000,000 feet.

In discussing the question of duration of supplies it can, as stated before, be reasonably done only by considering at the same time all supplies of a similar nature, namely of the white pine, norway pine, spruce and hemlock at least, which can be and are used more or less interchangeably, and will be still more so in the future, to meet our immense requirements for this class of material. That these requirements are not to remain stationary, but have a tendency to increase, may be seen from the development of the wood-pulp industry.

While in 1881 the daily capacity of wood-pulp mills was less than 750,000 pounds, it had more than doubled in 1887, and then increased steadily, doubling almost every three or four years, as follows:

	Pounds.		Pounds.
1887	1,687,900	1892	5,136,300
1888	2,153,500	1893	6,495,400
1889	3,474,100	1894	7,231,900
1890	4,012,200	1895	9,027,000
1891	4,497,200		

This last figure may be conservatively estimated to correspond to an annual consumption of probably 800,000,000 feet B. M., of material.

There was imported from 1891 to 1896 wood-pulp to the value of $10,337,659, as follows:

1891	$1,902,689
1892	1,820,143
1893	2,908,884
1894	1,664,547
1895	984,692
1896	1,056,704
Total	10,337,659

SUPPLIES.

While the above figure of 20,000,000,000 feet B. M., gives a fair idea as to average consumption, which may vary perhaps by 10 per cent one way or the other, we are much less certain as to supplies standing.

For Minnesota the chief fire warden of the State has attempted a canvass (see Appendix 2), the result of which would indicate nearly 18,000,000,000 feet as standing in the State, including norway pine, the estimate having been made for 1895. This has been criticized by competent judges as much too high; nevertheless, adding the estimates of all other kinds of coniferous wood, some of which as yet remains unused, it is thought that a statement in round numbers of 20,000,000,000 feet of coniferous wood in Minnesota fit for lumbering, though large, would be reasonably enough near the truth for our purposes in forecasting the probabilities.

For Wisconsin official data are entirely lacking; an estimate of 10,000,000,000 as the maximum stand of white pine and norway pine has been made by a competent lumberman. (See Appendix 3.) As there is considerable hemlock and other coniferous wood in the state, and as it is preferable to overstate, we may treble this amount and take 30,000,000,000 feet, a probable overstatement of 50 per cent, as the maximum amount of coniferous timber fit for lumbering standing in the State.

For Michigan a canvass from township to township has been made by the commissioner of labor of the State for 1896 (see Appendix 4), which develops an area of 2,250,000,000 acres in pine and hemlock.

If the average stand per acre, which the census of 1890 showed as 6,000 feet for white pine, is applied to the whole area, the amount of timber standing would be 15,000,000,000 feet, which, for safety, we may increase by 20 per cent, or say 18,000,000,000 feet, of which 6,000,000,000 would be white pine. This, too, is supposed to overstate the conditions by 50 per cent.

For Pennsylvania the partial returns of the commissioner of forestry would make an estimate of 10,000,000,000 feet pine and hemlock appear highly extravagant. In a private communication he estimates the standing timber of white pine at 500,000,000, of spruce at 70,000,000, and of hemlock at 5,000,000,000 feet B. M.

For New York, without much basis, 5,000,000,000 may be allowed as an extravagant figure, with a cut of not less than 500,000,000 feet; another 3,000,000,000 for New Hampshire; and, with a closer estimate, based on figures given by the forest commissioner of Maine, that state may be given at best not to exceed 10,000,000,000 feet of spruce, pine and hemlock.

It is well known that in the "Pine Tree" state the white pine is long since reduced to a small proportion of the coniferous wood standing. The spruce country is confined to the elevated northern half of the state, north of a line from the White Mountains to Mars Hill, with a spruce-bearing area of probably less than 6,000 square miles. The stand on the two main spruce-producing drainage basins, the Kennebec and Androscoggin, has been estimated at round 5,000,000,000 feet B. M., with a present cut of round 350,000,000 feet. Partial statistics of the cut are given in Appendix 5, which would indicate a total cut of coniferous woods in Maine of not far from 500,000,000 feet in 1895 and preceding years.

In all these estimates of standing timber the writer has leaned toward extravagance rather than understatement, and thus the total is found to add up 100,000,000,000 feet of coniferous growth in the northern states, of which less than half is pine, to satisfy a cut of at least eighteen to twenty billion feet per annum.

The writer does not say that in less than six years every stick of pine, spruce and hemlock will be cut, for such figures as these do not admit of mathematical deductions, but the gravity of the question of supply is certainly apparent. Even doubling the estimates, it is found that, with the present rate and method of cutting, ten years must have exhausted our virgin timber of these classes. We should add that much more intimate knowledge exists now regarding these supplies than was possible in 1880, when much of the country was still unopened and unknown.

OTHER SUPPLIES.

The southern pines, to be sure, will enter more largely into competition, as also the cypress and other coniferous woods of the south.

The entire region within which pines occur in the south in merchantable condition comprises about 230,000 square miles, or, in round numbers, 147,000,000 acres: for land in farms, 10,000,000 acres must be deducted, and allowing as much as two-thirds of the remainder as representing pine lands (the other to hardwoods), we would have about 90,000,000 acres on which pine may occur. An average growth of 3,000 feet per acre—an extravagant figure when referred to such an area—would make the possible stand 270,000,000,000 feet, provided it was in virgin condition and not largely cut out or culled. Altogether, the writer has reached the conclusion that, adding all other coniferous wood in the south, an estimate of 300,000,000,000 feet would be extravagant, which, added to the northern supply of coniferous woods, gives a total supply of 400,000,000,000 feet to draw from in the Eastern United States; and as the entire cut of these classes of wood appears now to be not less than 25,000,000,000 feet a year, and probably is nearer 30,000,000,000, it may be stated, with some degree of certainty, that not fifteen to twenty years' supply of coniferous timber can be on hand in the eastern states.

In 1886 the writer ventured a statement that there was 600,000,000,000 feet of coniferous growth in the eastern states; the cut was then estimated at 12,000,000,000 feet. If an average cut of 20,000,000,000 for the last ten years be allowed, which is reasonable, the present estimate of 400,000,000,000 standing would lend color to the approximate correctness of these figures.

If the inquiry is extended to the coniferous growth of the Pacific coast, which, in spite of the distance, must finally come to our aid, only partial comfort will be found. The writer's estimate of 1,000,000,000,000 feet standing has been, by competent judges, declared extravagant. The annual cut on the Pacific coast approaches certainly 4,000,000,000 feet, hence, adding these figures to those obtained for the east, with 1,400,000,000,000 feet standing at best, and a cut of at least 30,000,000,000 feet per annum, there would appear to be, under most favorable contingencies, not more than forty to fifty years' of this most necessary part of our wood supply in sight if the same lavishness in the use of it is continued.

To be sure, there is some new growth and reproduction going on. The probability as to the former is that decay and destruction by fire offsets the accretion on the old timber of coniferous growth, and no one familiar with our forest conditions and present methods will indulge in a hope that the reproduction and young growth can materially change the results. Long before any new reproduction can have attained log size we will have got rid of the virgin supplies.

ECONOMY.

There is, then, only the possible alternative of supplying ourselves from other countries, or of curtailing our cut. In this latter regard the possibility is large. Not only can a much closer utilization of the standing timber be practiced, but a more economical use of the same is reasonably to be expected.

As will appear from the figures given, this country consumes of coniferous wood somewhat over 400 feet B. M. per capita, while England, which probably has the lowest per capita consumption of wood among civilized nations, being almost entirely dependent upon importation, is able to get along with one-third that amount, and Germany's consumption remains below 150 feet B. M. per capita of all kinds of sizable wood. The margin within which, therefore, we can curtail our requirement is large enough to lengthen out our supplies considerably.

CANADIAN SUPPLIES.

As to importations, there is practically only one country from which such timber can be obtained—Canada.

The statistician of the department of agriculture of the Dominion of Canada in 1895 estimated the white pine standing at 37,300,000,000 feet, with an annual cut of nearly 2,000,000,000 feet, including spars, masts, shingles, etc., which, as will readily be seen, can not materially change the position stated before, namely, that the next decade must witness the practical exhaustion of this greatest lumber staple. Even allowing 10,000,000,000 feet of merchantable spruce, which may be found in New Brunswick and Nova Scotia, such allowance cannot appreciably retard this exhaustion, since the total annual cut of Canadian coniferous wood exceeds 5,000,000,000(?) feet. **Fifty per cent may be readily** added to the estimates of standing timber in Eastern **Canada**, thus assuming 75,000,000,000 (?) **feet as on** hand, and still Canada's cut alone will exhaust her resources in fifteen years, and this country will assist her to get rid of it in less time.

So far the importations from Canada, although rapidly increasing, have been insignificant when compared with our home consumption. The importations of all kinds of forest products and wood manufactures have been hardly over 1 per cent of our own production, and, if we confine the inquiry to coniferous material only, the proportion of the importation of this class of materials rises to hardly 5 per cent of our home production of the same kinds.

The three tables following, taken from the statements of the United States Bureau of Statistics, show the trade relations of the two countries as regards these classes of imports from one country to the other.

Value of Imports of Wood and Wood Manufactures from Canada to the United States.

United States Bureau of Statistics.

From—	1892.	1893.	1894.	1895.	1896.
Nova Scotia and New Brunswick:					
Free	$ 413,536	$ 340,680	$ 334,267	$1,972,885	$2,762,530
Dutiable	742,875	888,789	658,806	179,489	85,056
Quebec and Ontario:					
Free	1,640,804	2,642,094	3,415,403	9,240,665	11,700,851
Dutiable	9,012,215	9,974,274	7,735,856	950,778	19,969
British Columbia	....	....	....	108,179	133,148
Total	11,809,430	13,845,837	12,144,332	12,451,996	14,701,694

Value of Imports of Wood and Wood Manufactures from the United States to Canada.

United States Bureau of Statistics.

To—	1892.	1893.	1894.	1895.	1896.
Nova Scotia and New Brunswick	$ 115,110	$ 92,208	$ 208,737	$ 190,196	$ 216,977
Quebec and Ontario	1,746,867	1,990,831	2,740,868	2,416,728	2,723,459
British Columbia	100,743	100,012	111,914	146,423	152,079
Total	1,962,720	2,183,051	3,061,519	2,753,347	3,092,515

Exports of Coniferous Products from Canada to the United States.

In millions of feet, B. M., rounded off.

Coniferous Products.	1877-1882.	1883-1888.	1889-1894.	1892.	1893.	1894.	1895.	1896.
	6 years	*6 years.*	*6 years.*					
Logs:								
Hemlock	5.5	9.5	20.0	5.0	5.9	5.2	2.2	
Spruce	9.0	26.6	86.9	23.0	21.0	17.9	25.0	4.8
Pine	2.2	4.6	504.5	74.0	127.0	277.9	212.2	15.2
Total logs	16.7	40.7	611.4	102.0	153.9	301.0	239.4	157.7
Lumber:								177.7
Deals	31.5	108.7	204.5	53.0	51.0	42.5	44.2	48.8
Laths	43.5	64.8	250.7	38.7	89.4	42.8	44.9	52.3
Boards, scantlings, etc	965.8	1,132.9	3,098.1	651.4	759.1	1,018.3	549.5	720.5
Masts, spars, and other	1.4	.8	.7	.2	....	....	....	....
Shingles	14.9	21.8	132.2	33.4	40.3	36.5	65.8	45.7
Timbers	3.9	1.6	165.5	....	....	....	....	....
Pulpwood Blocks	(*a*)	(*a*)	(*a*)	30.0	62.0	61.5	76.3	100.0
Total manufactured wood	1,061.0	1,330.6	3,851.7	806.7	1,001.8	1,201.6	779.8	967.3
Total coniferous products	1,077.7	1,371.3	4,463.1	908.7	1,155.7	1,502.6	1,019.2	1,145.0

a Too small to be stated in millions of feet, B. M.

To arrive at an idea of the extent to which we have so far drawn on our neighbors for coniferous supplies, an attempt has been made in the above table to segregate from the trade and navigation reports of the Dominion of Canada those items which have reference to this discussion, translating into board measure approximately the returns given in other measures. These figures are probably somewhat below the truth, but are sufficiently accurate for the present purpose, and are, moreover, the only ones available:

Logs Imported from Canada.

	Pine Logs.			Spruce Logs.			Hemlock Logs.		
	Quantity, M feet.	Value.	Price per M feet.	Quantity, M feet.	Value.	Price, per M feet.	Quantity, M feet.	Value.	Price, per M feet.
1884	974	$ 8,012	$8.23	6,820	$ 31,793	$4.66	4,818	$19,168	$3.98
1885	380	2,300	6.05	11,165	49,449	4.43	3,629	14,752	4.07
1886	2,869	24,452	8.52	17,541	81,874	4.67	6,881	28,076	4.08
1887	6,350	49,242	7.75	17,526	88,773	5.65	4,206	17,447	4.15
1888	468	3,875	8.28	20,714	99,450	4.80	4,512	18,383	4.07
1889	10,839	94,287	8.70	20,360	137,298	6.74	6,420	24,261	3.78
1890	32,144	261,626	8.14	26,073	156,898	6.02	2,952	12,288	4.17
1891	36,690	313,281	8.54	28,494	158,334	5.56	2,210	9,802	4.44
1892	73,963	651,540	8.81	23,404	141,168	6.02	5,057	21,426	4.24
1893	127,084	1,056,355	8.32	21,103	123,254	5.84	5,880	26,036	4.43
1894	277,947	2,359,951	8.49	17,926	107,250	6.00	5,217	19,713	3.77
1895	212,231	1,860,319	8.77	25,095	90,990	3.64	2,217	9,017	4.06
1896	157,400	1,423,489	9.06	15,182	86,075	5.67	4,761	18,607	3.90

It will be seen that each six years' period shows an increase, and that the exports of the last three years were only 25 per cent lower than those of the six preceding years. The largest imports were recorded for 1894, when nearly 1,250,000,000 feet partly manufactured coniferous wood and 300,000,000 feet of logs of conifers were imported. This latter importation increased steadily up to that time, furnishing raw material mainly to our Michigan mills, whose home supply is largely gone.

In the importation of logs it is interesting to observe that they increased in quantity without reference to the existence or absence of the export duty which the Canadian government imposed in 1886, and abolished in 1891, and the price per M. feet also seems uninfluenced. The necessity for these supplies to our mills, especially the mills of the Saginaw (Michigan) district, began to assert itself in 1886, the very year the export duty was imposed to prevent, if possible, these exports of raw material, and has grown constantly, the decline in 1895 and 1896 simply marking the general business depression.

It will be evident from these statements that our virgin coniferous supplies must share the fate which the buffalo has experienced, unless a practical application of rational forestry methods and a more economic use of supplies is presently inaugurated. Since coniferous wood represents two-thirds to three-fourths of our entire lumber wood consumption, and its reproduction requires more care and longer time than that of hardwoods, the urgency of changing methods in its use and treatment will be apparent.

Summary of Estimates of Coniferous Wood Standing in Minnesota, 1896.

Compiled from Report of State Chief Fire Warden. Feet, B. M.

County	White pine, million.	Norway pine, million.	Jack pine, million.	Spruce, million.	Cedar, million.	Tamarack, million.
Aitkin	375	75				
Becker	120	60		(a)		
Beltrami	1,500	350		(a)		(a)
Benton	1					
Cass	1.6	0.4				
Carlton	550	100		(a)	10	
Cook	800	150		200	200	
Crow Wing	25	5	10			
Douglas				(a)		
Hubbard	450	300	50	10		
Isanti	0.2					
Itasca	2,300	550	30	100	100	50
Kanabec	150					
Lake	1,500	200	50	200	400	150
Millelacs	500	40				(a)
Morrison	18	7				
Ottertail	2	0.4		(a)		
Pine	800	300				(a)
Roseau	450	150		100		(a)
St. Louis	3,200	700	400	450	300	400
Todd	2	0.075				(a)
Wadena	6	30	100			
Total	12,650	3,017.875	640	1,060	1,010	600
The summary given by the Chief Fire Warden is as follows	14,424	3,412	640	1,060	1,010	450

a Small amounts reported.

Estimates of White Pine standing in State of Wisconsin, 1895.

Appendix 3.

County.	Feet, B. M.
Ashland	400,000,000
Barron*	Small amounts.
Bayfield	1,700,000,000
Burnett*	Small amounts.
Chippewa*	do
Clark*	do
Douglas	1,300,000,000
Florence	400,000,000
Forest	900,000.000
Iron	200,000,000
Langlade	200,000,000
Lincoln	600,000,000
Marathon*	Small amounts.
Marinette	700,000,000
Oconto	200,000,000
Oneida	600,000,000
Portage*	Small amounts.
Price	400,000,000
Sawyer	500,000,000
Shawano*	Small amounts.
Taylor	400,000,000
Vilas	400,000,000
Washburn	300,000,000
Wood*	Small amounts.
	9,200,000,000
Allowance for (*) counties	800,000,000
	10,000,000,000
Probable cut since 1895	2,000,000,000
Timber standing	8,000,000,000

Total assessment valuation of the counties, estimated, for 1895	$21,513,227
Farm property, according to census 1895, 1,111,546 acres, valuation	6,208,645
Balance assessment on woodlands, round numbers	15,000,000

Coniferous Lumber cut in Maine since 1872. Kennebec River and Affluents.

Compiled from books of Log-driving Companies.

Appendix 5.

Year.	Million feet B. M.
1872	153.9
1873	178.6
1874	121.1
1875	124.8
1876	153.8
1877	62.1
1878	118
1879	131.4
1880	141.3
1881	238.9
1882	209.1
1883	206.2
1884	179.2
1885	182.5
1886	214.7
1887	165.4
1888	213.4
1889	237.5
1890	242.1
1891	226.3
1892	224.9
1893	271
1894	174
1895	165.7

Coniferous Timber standing in Michigan, 1897.

Compiled from fourteenth annual report of the State Commissioner of Labor.

Appendix 4.

County.	Number acres of standing pine in county.	Number acres of standing hemlock in county.
Alcona	1,640	13,620
Alger	22,800	46,064
Allegan	82	70
Alpena	80	15,440
Antrim	5,800	12,539
Arenac	160	2,677
Baraga	61,000	117,000
Bay	....	9,720
Benzie	1,950	3,540
Berrien	230	390
Calhoun	1	....
Cass	....	200
Charlevoix	2,835	10,934
Cheboygan	7,595	33,446
Chippewa	69,940	119,570
Clare	440	6,880
Crawford	13,000	1,300
Delta	39,021	111,408
Dickinson	23,780	12,100
Emmet	1,540	26,160
Genesee	225	....
Gladwin	3,160	15,740
Gogebic	32,800	47.000
Grand Traverse	4,360	9,032
Gratiot	30	....
Houghton	41,750	66,160
Huron	430	90
Ionia	20	....
Iosco	2,700	6,060
Iron	31,860	26,400
Isabella	1	7,680
Kalkaska	28,759	21,635
Kent	471	1,000
Keweenaw	9,888	15,060
Lake	9,052	2,635
Lapeer	120	55
Leelanau	....	6,900
Livingston	4	....
Luce	5,000	12,000
Mackinac	10,563	58,700
Macomb	5	....
Manistee	6,527	12,813
Marquette	85,690	90,006
Mason	13,912	4,360
Mecosta	10	13,527
Menominee	19,890	65,090
Midland	....	720
Missaukee	10,912	21,280
Montcalm	120	750
Montmorency	12,780	15,330
Muskegon	355	470
Newaygo	2,665	2,221
Oakland	20	....
Oceana	73	6,437
Ogemaw	3,750	6,105
Ontonagon	63,280	207,160
Osceola	1,120	12,158
Oscoda	21,706	4,000
Otsego	17,266	6,965
Ottawa	20	1,600
Presque Isle	9,086	27,961
Roscommon	4,920	12,440
Saginaw	2,103	....
Sanilac	10	20
Schoolcraft	61,367	105,218
Shiawassee	....	....
St. Clair	700	....
Tuscola	105	1,490
Van Buren	20	....
Wexford	3,700	10,990
Total	775,208	1,408,166

Coniferous Lumber cut in Maine since 1872. Penobscot River.

In millions of feet, B. M. From books of Surveyor-General.

Year.	Pine.	Spruce.	Hemlock, etc. *a*	Total.
1872........	46.2	176.9	23.4	246.5
1873........	32.6	129.3	17.3	179.2
1874........	24.2	135.2	17.4	176.8
1875........	22.3	116.7	15.7	154.7
1876........	19.6	82.1	13.4	115.1
1877........	14.7	85.5	17.7	117.9
1878........	19.5	81.4	21.3	122.2
1879........	17.9	92.0	12.7	122.6
1880........	17.7	91.6	14.2	123.5
1881........	33.7	104.7	15.9	154.3
1882........	33.4	122.5	16.2	172.1
1883........	26.5	115.3	19.4	161.2
1884........	24.7	84.4	16.2	125.3
1885........	30.5	94.4	17.9	142.8
1886........	28.6	100.9	17.1	146.6
1887........	29.1	102.7	17.8	149.6
1888........	30.9	114.3	19.5	164.7
1889........	27.9	121.7	20.7	170.3
1890........	28.3	129.5	21.3	179.1
1891........	23.1	118.2	23.7	165.0
1892........	26.9	105.0	28.5	160.4
1893........	22.4	81.4	21.4	129.2
1894........	25.4	117.0	19	161.
1895........	27.2	91.5	25.5	144.2

a Including probably hardwoods.

CANADIAN RESOURCES.

Some facts concerning the present volume of pine in the forests of Canada are pertinent in this connection and will serve to dispel the illusion that the Dominion comprises an illimitable forest of this valuable timber. We quote from page 182 of the report of the Canadian Department of Agriculture for 1895, as follows:

APPROXIMATE ESTIMATE OF THE QUANTITY OF PINE IN CANADA.

"For Ontario a careful estimate gives 38,808 square miles of pine lands. Assuming half a million feet board measure to the mile, which is the provincial estimate for the land under license, and is probably about correct, while the unlicensed area is not likely to produce more, seeing the pine grows sparser and smaller to the northward and westward, we have in feet, board measure 19,404,000,000

For Quebec a similar estimate gives 31,468 square miles of pine lands. Assuming the same proportionate yield, we have 15,734,000,000

For the Maritime Provinces a similar estimate gives 22,027 square miles of woodland of all kinds. Assuming a fifth part to be pine (probably in excess of the reality), and applying the same measurement, we have 2,200,000,000

Total pine from Atlantic to Rocky mountains.......37,338,000,000

1. Even at the low estimate of an annual cut of 1,000,000,000 feet B. M., this would exhaust the present supply in about thirty-seven years. And under the present system the annual growth could not greatly prolong that period.

2. No estimate can at present be found of the amount of Douglas fir and other woods which in British Columbia supply in a measure the place of our eastern pines.

3. Neither are there sufficient data for even an approximate estimate of the amount of spruce. There is an immense quantity, for it extends from the Atlantic to the Pacific, from the international boundary to the delta of the Mackensie river, and is found almost everywhere except on the prairies and the barrens, but much of it is very small. Beside its growing use for lumber, the demand for pulp wood is making inroads on the spruce forests."

From the above quotations it would appear that the government estimates of the pine supply of the western province of Ontario (which is usually quoted by those who claim the most for the Canadian resources), claim a remaining quantity little, if any, in excess of our generally accepted estimates of the remaining supply of either Minnesota or Wisconsin.

CHAPTER XLIX.

CHARACTERISTICS AND USES OF THE PRINCIPAL FOREST GROWTHS OF THE NORTHWEST.

THE white pine (pinus strobus) has been the most sought and most widely utilized of the various forest growths of the northwest. It was found in dense bodies in each of the three states treated of in this history, occupying the northern two-thirds of the territory of each of these states.

Being of a soft texture and easily worked, taking paint better than almost any other variety of wood, it has been found adaptable to all the uses demanded in the building art, from the manufacture of packing cases to the bearing timber and finer finish of a dwelling. Of light weight, it has borne transportation to the farms of the west, where it is used for building purposes in dwellings, barns and corn cribs, while as a fencing material it has no superior. Aside from those conditions which demand a dense strong timber, such as ship-building or in wagon-making, white pine has been found adaptable to all the economic uses in which lumber is required, not excluding its use in coarser articles of furniture. No wood has found greater favor or entered more fully into supplying all those wants of man which could be found in the forest growths. It reached its highest development in soils of the heavier loams, while attaining great perfection in lighter sandy and gravelly loams, and sandy areas.

Red pine or norway (pinus resinosa) is found on nearly all sandy pinery areas; scatteringly in the southerly sections, growing more abundant in the more northerly regions. It does not mix with the hardwoods on clay land except near Lake Superior, and is largely mixed with white and jack pine, forming large stands, exclusively of its own nature in many sections.

Being of a harder texture than white pine it was almost wholly neglected until about 1870, when its value in textile strength began first to call for recognition, and since that time it has rapidly grown in favor. Its use is much more restricted than that of white pine, as it is not recognized as available for finer finishing purposes, holding paint but indifferently. For studding, joist, flooring and coarser uses, where it can be kept free from dampness, it is of equal value with white pine, and with a decadence in the supply of the latter has become almost as plentiful in the yards of dealers, and in compilations of quantities, no distinction is made by statisticians between it and white pine.

Jack pine (pinus divaricata) is a small, stunted tree found in thickets as a rule, and on worthless sands, and has never been considered of any great economic value. In quantity it is restricted and has never been taken into account by timber estimators, being coarse and horny in grain, and seldom being found of a height permitting of one sixteen-foot log to be taken, and that of a rough, black knotted character, not adaptable to the ordinary uses of pine lumber, and seldom utilized.

Hemlock (isuga canadensis) has been found in more or less abundant quantities throughout the pine belt, but has never, until of very recent years, been esteemed of value as a lumber producer, its value being mainly in its bark for tanning purposes. It grows to good diameter, but is usually of short body, with plentiful, horny, red knots, which in past years were considered too trying upon mill saws to warrant its becoming a favorite, although for large timber, joist and studding, its value is unexcelled by either the white or norway varieties of pine. It has no value as a finishing wood, and its tough, splintery character has gone far to prejudice lumber workers against its use. With a decadence of the pine supply however, the value of hemlock has become more generally understood, and where in past years it was wholly neglected, it is now a rare thing to find a mill pond or yard, which does not include a goodly portion of hemlock logs, while in the lumber yards of the west, hemlock has become a staple article in studding, joist and small timber, while a limited trade is done in one-inch boards, where a rat-proof timber is needed, as in corn cribs and grain bins.

Cedar.—The commercial cedar (thuya occidentalis) so often mentioned in this history is commonly known as "white" cedar and is much less dense in texture and far less durable in wear than red or pencil cedar, nevertheless, it is from its tall and uniform growth, well adapted to use for telegraph and telephone poles, its durability under ground being far greater than almost any other of the forest growths, while the larger trees have been found of great utility in the manufacture of a remarkably durable shingle, and while the timber is of a soft and somewhat spongy nature, it has been found of great utility in railroad ties. It has its habitat like the cypress of the south, in swamps and seldom attains a diameter greater than from sixteen to eighteen inches, while the average tree used for commercial purposes seldom exceeds twelve inches, carrying its size with remarkable uniformity to its first branching limbs at a height of thirty to fifty feet. It has been found in great profusion in all of the more northerly sections of Michigan and Wisconsin, and in a more stunted growth on the north shore of Lake Superior, and northern Minnesota; since about 1870 it has entered very largely into the traffic of all these sections, and forms a large proportion of the shingle manufacture of the northwest.

Tamarack (larix larciana) is a common swamp tree of Northern Michigan and Wisconsin, while not of sufficient extent to form a separate and much utilized article of commence. While of much the same general character as white cedar with which it mixes, it is of a much firmer texure, and its roots have been much sought and utilized as knees in ship-building, being of a most durable nature in damp and exposed places like the ends of deck beams, or in the futtocks or bilges of a ship's bottom. When found, as is comparatively rarely the case, of size to be hewn or sawed in logs, it is an excellent material for the planking of small boats. It is tall and spindling in its growth, often attaining a height of sixty to ninety feet. It is not found in sufficient quantities in the forests of the northwest to assume a position of commercial importance.

Spruce (picea canadensis) and black spruce (picea neariana) is found in very limited quantities in the Lake Superior region, of a size suitable for utilization as lumber or timber, and has consequently never been made much account of in lumbering in the northwest. As a rule, the spruce of this section is found in the better timbered swamps and more humid portions of loam and gravel mixed soil. While in Maine, Nova Scotia and other sections of the east spruce is a leading article of commerce, it is a comparative stranger to the lumbermen of the northwest.

Of the broad-leafed trees of the northwest, basswood is found mixed with the hardwood growths of nearly all sections, and is much utilized in carriage building and to some extent as a building material (siding and interior finish), and in the construction of freight cars (lining), and while in past years neglected, has in later days become an important adjunct to the lumber production of the mills of the west. Its quantity is restricted, no, or few, large bodies being found of extent to be made an independent object of mill supply.

Beech (fagus ferruginea).—Heavy, rigid, strong, hard, but rather coarse texture: color, white to light brown; short-lived in the ground and the natural prey of boring insects; checks considerably in seasoning, but in a sound dry state works and stands well and takes a fine polish. Beech is used in turnery, furniture, for handles, hand planes, wood carving, by carpenters, millwrights and wagon makers.

Beech grows to a medium size and is abundantly common in the Ohio and Mississippi basin, but is found from Maine to Wisconsin and southward to Florida.

Sycamore (platanus occidentalis) (button-wood, button-ball-tree, water-beech). — Wood medium heavy, hard, stiff, strong, tough, frequently cross-grained, of coarse texture and white to light brown shades; hard to split and work, shrinks moderately, warps and checks considerably, but in good condition stands well.

Sycamore is used in furniture and office desks for drawers, backs, bottoms, etc.; for plug tobacco boxes, in cooperage, and is growing in favor as a finishing material. The grain is uniquely marked, largely seeming to run crosswise in a mottled fashion, quite strikingly handsome. It attains to large sizes and grows rapidly, but is not superabundant; common and heaviest in the Ohio and Mississippi valleys, but is found in all parts of the United States. The increasing use of hardwood for interior finish has led to a high appreciation of sycamore as a contrast wood in panels for desks and in other branches of office furniture.

Birch.—There are various modifications of birch which grow throughout the United States, east, north and south. In a general way birch may be described as of a hard, heavy, compact, strong and fine texture; the heartwood sharply changes in shading from a light brown to whitish sapwood; the general effect in appearance is handsome, rich and often charmingly wavy. It takes a lustrous or satiny finish, and when thoroughly seasoned, stays in place with unvarying tenacity. It can be stained in close simulation of cherry and mahogany. The wood will not long bear exposure to the weather. It is extensively used for interior finish, in the manufacture of furniture, wood turnery, for spools, wooden shoes, shoe lasts and pegs, wagon hubs, ox yokes, wood carving and, to a considerable extent, for flooring.

The various botanical modifications are respectively designated as follows: Cherry birch (betula lenta); yellow birch (betula lutea); red birch (betula nigva); canoe birch (betula papyrifera). The red birch of commerce has no necessary reference to botanical nomenclature, but rather to that of prevailing grading rules. Subject to variations of taste, birch is classed among the most sightly of domestic woods for interior finish and furniture.

Elm is a moderately tall, long-shafted tree common in all hardwood forests and may be classed as—

(a) White elm (ulmus americana), commonly spoken of as "soft" or "piss" elm. This tree has never been esteemed of great commercial value, while utilized to an extent in the manufacture of hoops for slack work barrels. Of later years it has been utilized by furniture workers, taking a good stain, and is extensively used in the cheaper articles of manufacture. This wood is quite plentiful and with increasing adaptations of manufacture is destined to maintain an increasing value. It is but little adapted to the general uses signified by the term lumber, but in its special adaptations is found to answer a most excellent purpose.

(b) Rock elm is adaptable to many uses in which oak is employed, being tough in texture and flexible in nature, and is excellent for bending purposes, while for many purposes in ship building it is preferred to white oak. It is found but sparsely among the hardwood growths of Michigan and Wisconsin, and while much sought has never been found in quantities warranting independent lumbering.

Maple.—Hard or rock maple (acer saccharum) is indigenous to our common country from Maine to Minnesota inclusive, and southward to northern Florida, but it is most notably superior as well as abundant in the region of the great lakes.

Maple of the above species, sometimes also called sugar maple, is of a whitish or creamy shade, slightly darkened at the heart. Its texture is hard, compact, uniform, tenacious. It resists rough usage in a superlative degree, wears down uniformly and never "shells," splinters, or disintegrates from ordinary uses in any manner whatever. Of extreme vital tenacity, its bearing capacity, as well as durability and highly pleasing surface appearance, is equally noteworthy. It shrinks with marked moderation and "stays put."

In flooring and other exposed hard uses, maple is known to experts as having from two to three times the wearing tenure of other woods commonly utilized for like purposes. Its exceptional strength and enduring tenacity make it an ideal material for parts of car construction, in which exacting industry it is extensively used.

In the manufacture of implements, vehicles, machinery, furniture and other devices and wares requiring resistance, smooth finish and durability, maple is in practically universal favor, strictly upon its intrinsic merits. For these and other similar ends, it is esteemed a wood of distinguished excellence, and to architects and mechanics accustomed to using it, maple among domestic hardwoods is as staple and trusty as steel is among metals.

For use as flooring in particular, maple is literally without a rival worthy of the name in the construction of office buildings, school houses, churches, stores and warehouses, public halls, kitchens, hallways, piano warerooms and any similar structure.

The prevailing processes of manufacturing maple flooring among the most advanced producers have attained to practically absolute perfection. The formula employed by this class, involves, in brief, the most approved drying facilities, the mechanical precision and accuracy in working of a die and includes polished surface, tongue and groove, hollow back, matched ends and holes bored for nails. The finished product is accordingly, to all intents and purposes beyond criticism.

One important result of the producing methods above outlined is that whereas in earlier and more primitive times the cost of laying and finishing hardwood flooring for manual labor alone was from $5 to $12 a thousand feet, a more perfectly finished result is now subject to no greater expense than pertains to the laying of any of the coarser kinds. It is ordinarily worked to narrow widths, but when thoroughly kiln dried, the practice is not at all needful. When end-matched and laid, as it generally is, on a "false" or sub floor, any length, however short, can be and is utilized with equally satisfactory results.

The annual output of maple flooring of the high character in question is believed to be considerably less than 100,000,000 feet, a mere bagatelle of the aggregate of wood flooring consumed in the United States alone.

An unaccountably curious incident of the industry at this particular period is that notwithstanding the comparatively restricted output and the incomparable excellence of the material, its current market value in the various commercial centers barely equals that of the least meritorious among a very few competitive woods.

Oak.—The oaks of the north have for generations borne a most excellent commercial reputation. The white oak (quercus alba) is found in many portions of Michigan and Wisconsin, and in all of the hardwood sections of the northwest. As a ship-building material, it has held almost exclusive preference over all other varieties of timber for the frames and planking of ships, and the reputation of American white oak has led to large enquiry from the ship-builders of all portions of the world to such extent that the timber adapted to European markets and uses may be said to be practically exhausted. Large quantities of white oak have been utilized in hogshead and puncheon staves, for which it is better adapted than any other wood. From an early day, white oak has been a favorite with the public as a furniture wood and the majority of the remaining resources of the northern forests will no doubt be thus utilized. It is of dense texture easily molded (after steaming) tough and tenacious in holding spike or nail and takes a high polish as a furniture wood and in the finish of a better class of buildings.

Red oak (quercus rubra) is, as a rule, much more plentiful than white oak, but being of a brash and brittle nature, has found acceptance in the past only as a material for the construction of flour barrels and other slack work, while of late years its capabilities of taking a high polish, after a filling process, presenting a highly ornamental appearance, have led to an increased use as a furniture wood, and in office fitting, for which it has been found highly adaptable. Being of a softer and more porous character, as well as more readily perishable than white oak, it is not adapted to many of the uses to which the latter may be put, and has never, until of late, been considered of high commercial value.

Ash.—The white and black ash of the north bear to each other much the same relation as exists between the white and red oaks. The white ash (fraxinus americana) is found distributed throughout all the hardwood sections of the northwest in greater or less quantities, although affecting those sections which are of a more swampy character, a damp soil being the more favorable to its development. This timber is much sought by agricultural implement makers for its toughness and adaptation to those conditions in which great tensile strength is combined with elasticity. It is also much used by wagon makers, and as well in the manufacture of furniture, it being found highly adaptable in many of these branches of industry. In the building world it has long been used for floors, although of late years largely superseded by maple in this branch.

Black Ash (fraxinus nigra) has for generations been in favorite request for hoops for slack barrel work, its ready disintegration of grain into a thickness suitable for this work giving it eminent distinction. Of late years it has been found available as a furniture wood, for while quite porous it responds well to "filling" and when properly prepared takes on an excellent polish. It is also well adapted to staining in imitation of more valuable varieties. It is found in considerable quantities in semi-swampy districts, and has of late years become a prominent factor in hardwood production.

FINIS.